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CLIMBING THE ROCKIES.

SHOSHONE

AND

OTHER WESTERN WONDERS

By EDWARDS ROBERTS

WITH A PREFACE BY
CHARLES FRANCIS ADAMS

ILLUSTRATED



 $\begin{array}{c} \text{NEW YORK} \\ \text{HARPER \& BROTHERS, FRANKLIN SQUARE} \\ \text{$1888} \end{array}$

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PREFACE.

In the preface to his volume called the "Oregon Trail,"—one of the most delightful of his books, by the way, and one which should be regularly sold on the "overland trains" of the Union Pacific,—the historian Parkman describes how, shortly after graduation, he, in company with his cousin and classmate, Quincy A. Shaw, was one day journeying in the then wilderness, which is now Eastern Colorado. He says:—

"I remember that, as we rode by the foot of Pike's Peak, when for a fortnight we met no face of man, my companion remarked, in a tone anything but complacent, that a time would come when those plains would be a grazing country, the buffalo give place to tame cattle, farm-houses be scattered along the water-courses, and wolves, bears, and Indians be numbered

among the things that were. We condoled with each other on so melancholy a prospect, but we little thought what the future had in store."

This was in 1846. The object of the present volume is to describe to the tourist a route beginning where Parkman left off, at the foot of Pike's Peak, passing through the wonderful mountain and desert scenery of Colorado and Eastern Utah to Great Salt Lake, thence northward by the way of the Falls of Shoshone and the great lava bed of Idaho, through which the Snake cuts its way, to the plateau of the Yellowstone. There rivers which flow to the Gulf of Mexico, the Gulf of California, and the North Pacific, all find their source. From this mountain birthplace of flowing waters, the tourist would emerge by the gateway of the Missouri.

Travelled Americans are more familiar with Europe than with their own country; and yet it would not be easy anywhere in Europe to find so much that is novel, interesting and beautiful crowded into one short journey. There are historical associations, also, which attach to the trip. It is now familiar ground, but it was the

field of the first explorations ever attempted by the United States Government. As they approach it, most people probably suppose Pike to have been some miner of "the forty-nine" period; and they never know that the name, Pike's Peak, is the familiar monument of a gallant soldier of the United States, a brigadiergeneral of the War of 1812, Zebulon M. Pike, who in his thirty-fifth year met his death at the assault of York as it was then called, now Toronto, in April, 1813. Seven years before, in 1806, he had started from St. Louis, under orders from President Jefferson, to find his way to the head-waters of the Arkansas and Red Rivers. While toiling thither he first descried, upon the 15th of November, 1806, the blue peaks of the Mexican mountains to the westward; and accordingly the most prominent among them has from that day to this been known as Pike's Peak.

So, also, the scientific name of Great Salt Lake is Bonneville, after that Captain Bonneville whose life and curious adventures among the Indians about the year 1830 have been vividly described by Washington Irving; though with little actual knowledge of the subject about which he was writing.

As the traveller goes north, following the route laid down for him by Mr. Roberts in this volume, he may enter the Yellowstone Park by the beautiful Cañon of the Madison. Here he comes directly upon the trail of the expedition of Lewis and Clarke, sent out by President Jefferson in the year 1803 to find its way through the northern portion of the recently acquired Louisiana purchase to the mouth of the great river discovered by Captain Gray, of Boston, in the ship Columbia, in May, 1792. It was on the 28th of July, 1805, that the two famous explorers, having toiled slowly up the Missouri, reached the point where the great river forked in three directions; and they say:—

"We were therefore induced to discontinue the name of Missouri, and give to the southwest branch the name of Jefferson, in honor of the President of the United States, the projector of the enterprise; and called the middle branch Madison, after James Madison, Secretary of State."

Returning the following year, having wintered at the mouth of the Columbia, Lewis and Clarke reached St. Louis on the 23d of September, 1806, about two months after Lieutenant Pike had started on the journey which was to leave him a prisoner in the hands of the Spanish authorities at Santa Fé. The modern traveller, following the itinerary laid down in this volume, will thus go out by the route of Lieutenant Pike, and return by that of Lewis and Clarke, passing on his way through the scene of the adventures of Bonneville.

But the tourist who would still like to have a taste, though hardly, perhaps, more than a remote flavor of what is known as "roughing it" in his journey, has no time to lose. Civilization, with all that the name implies, is rapidly taking possession of the whole mountain region of the West. Down to the days of Parkman, Colorado was much the same as when it was first explored by Pike. The change has come within the last twenty-five years; and the change which has already taken place is suggestive of the yet greater change to come.

For the man or woman who, tired of the cities and of civilization, wishes for a time to get near to Nature, there is still much left west of the eastern base of the Rocky Mountains. Neither the steam railroad nor the electric road has yet marred the Yellowstone. The luxury and keen enjoyment of two days' staging even are to be had between Beaver Cañon and the Firehole of the Yellowstone.

The trip merits all that Mr. Roberts has said in its commendation. A few months ago Carl Schurz chanced to remark to the writer that of all earthly places his eyes ever rested on, Henry's Lake in Idaho, at the gates of the Yellowstone, seemed to him nearest to a terrestrial paradise. The remark met with a warm response. The day is not remote when at the head of Henry's Lake will be found a large summer hotel to which those residing in our Eastern cities, who are weary of watering-places and of the familiar European trips, will go to breathe in health from the fresh mountain air and to enjoy a scenery and a nearness to Nature which it is not easy anywhere else to find in

equal proportion. That region is still wild. The woods are full of game, and the waters teem with fish. Day after day you can walk or go on horseback through those park-like mountain reaches, and feel that you are wholly away from the haunts of men. And yet in a few years they will be hardly less frequented than the White Mountains or the Catskills now are.

It is still rare to meet any one who has seen the Falls of the Snake; and people look with mild surprise upon those who, having visited Shoshone, presume to compare it with Niagara. Yet no one possessed of a keen eye for the beautiful and the picturesque can visit the two places without feeling that the Idaho cataract, high up in the great table-land amid its lava beds, and under those wonderful mountain skies and in that mountain atmosphere, is incomparably the more attractive, and, indeed, except in volume of water, the more wonderful, as well as more interesting, of the two.

The proposed trip includes much, though for one starting even from the Eastern or seaboard

cities it can be made in the course of three or. at most, four weeks. It involves a lasting personal acquaintance, as it were, with Niagara, Chicago, the great plains, the mountainous regions and summer resorts of Colorado, the Cañons of the Arkansas and the Gunnison, the Marshall Pass, the Great Salt Lake of Utah. with its strange, picturesque, geological formation and pure, clear, health-giving atmosphere. the Falls of the Snake, the two days' staging across the park-like mountain plateau which leads to the sources of the Madison, the innumerable wonders of the Yellowstone Park, and finally the journey along the head-waters of the Missouri, all ending at St. Paul. No one who makes the trip is likely ever to forget it. That more may realize what it is, and so be induced to make it, is the object of the present volume.

CHARLES FRANCIS ADAMS.

Boston, July 20, 1888.

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CHAPTER I

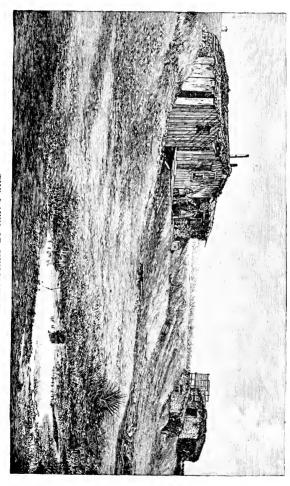
FIRST IMPRESSIONS.

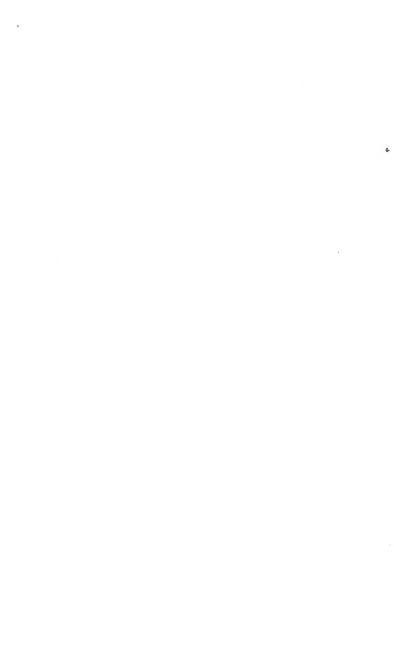
AT the city of Omaha, overlooking the muddy waters of the Missouri, one is at last face to face with the far West. The city itself affords a striking illustration of the untiring industry that has so materially changed the aspect of the country lying between the Rockies and the Missouri. Surrounding Omaha the progress of later days is most marked; but in the far distance are still the sea-like plains that were once the terror of a restless army bound across their trackless wastes toward Pike's Peak.

In the "good old days," as some enjoy calling that period during which the middle West was

a veritable terra incognita, "the West" was Buffalo. Later, the distinction was claimed by Chicago. To-day, both these cities have lost such prestige. Even Denver, far away as it is, can scarcely be regarded as on the outskirts of civilization. For beyond it is Salt Lake City; to the northwest are Chevenne and Laramie; in the extreme north are Butte and Helena. The growth of the trans-Missouri country has been one of phenomenal rapidity. Every year the changes are marked and important. Denver, Kansas City, Omaha, and other places have grown from villages to towns, and from towns to cities. One need not read to obtain their history; he can have it told by many a settler. The cities were born and have attained their manhood within a quarter of a century.

In taking his first trip westward one must prepare to be disappointed. He will find less barbarism than he expected, and more civilization. The era which the novels of brilliant hue depict is an era of the past. Much is rough and uncouth, of course, and there are vast areas which, minus the Indian and the buffalo, are much as they were before the advent of civilization. But pressing hard upon neglected wastes,





and fast obliterating all traces of that wild West which "Buffalo Bill" delights to illustrate, are the farms and homes of the new-comers. On every hand are seen the results they have accomplished. Study as you travel, and you will find the middle West as interesting as a novel. You can see history created. The cities are monuments to a people who in the future, if not to-day, will be famous for their thrift and energy.

If one's aim is enjoyment, he should take the West in sections. Try to see the entire region in one summer, and you will lose the charm which the more leisurely traveller gains. He who pays a flying visit to Europe, giving an hour to the Louvie, a day to Venice, a night to Paris, returns an ignoramus, confused and tired. So with the West: if too great haste is made the observer becomes confused. No particular spot is photographed on his mind. All is a jumble of prairie, mountain, river, and valley.

In order, therefore, that we may return from our summer holiday refreshed in body and in mind, let us not journey far, nor hastily. At Omaha we can mark our course. It is not so much a question where it shall lead, as it is where it shall not lead. Before us lies the West: close at hand the middle West; in the far distance the Pacific West. Colorado, of course, is one objective point. Through that State extend the Rockies, ever attractive and alluring; and there too is Denver, the untiring city that to-day is one of the wonders of the country. Then, from Colorado, what more natural than that Utah should be visited, — Utah, the stronghold of Mormonism, the land of sunshine and cultivated valleys and inland salty sea? But there we pause, and stifling the longing for lands still farther westward, turn northward through Idaho, and then eastward through the National Park, our "Wonderland," with its spouting gevsers, its gorgeously colored canons, and forests of sweet-smelling trees.

This, then, is our course. We will make a circle of it, nearly; for with Omaha as our starting-point, we will make St. Paul the end of our journey; and in the month or more that we are "on the wing," much of the glorious scenery of the middle West will be ours to enjoy. In our path will be cities that cannot fail to command admiration; views over which our artist will go into ecstasies. We shall climb

mountains, follow the course of winding streams, loiter at the Shoshone Falls, — higher and wider than those of Niagara, — and, toward the end of our time, wander at will among the curious formations of the Yellowstone.

When it was first proposed to build the Union Pacific Railway, the idea was regarded as visionary, hazardous, and foolish. Now that the road is an accomplished fact, one easily forgets that its construction ever appeared impossible. It is the pioneer line westward from the Missouri; and to-day, after escaping from its net-work of branches in Nebraska, extends to Denver, Cheyenne, and Ogden. By lease and purchase it has also its Pacific coast terminus, and has penetrated the rich mineral fields of Montana. If only the early disbelievers in the Union Pacific could see it now, how strong would be their desire to hide from the gaze of the world!

The course of the Union Pacific from Omaha to Denver is through Nebraska to Denver Junction, and thence southwest to the famous Colorado city. The river Platte is followed nearly the entire distance, and one is led through a region that is fast becoming famous for its farms and vast agricultural areas.

It is often said that the plains are dull and monotonous. He who is alive to the beauties of Nature, or who is interested in whatever is novel, can never agree to this. Their very history gives them interest. Some of the fiercest battles that the pioneers ever waged were fought on the ground that we too often pass over without a thought of the events of twenty years ago. Every inch of the way across Nebraska was contested. Recalling the past, I can still see the long trains of emigrants, bound for the new El Dorado; and at night, when there are prairie fires to be seen, there comes vividly before me the picture of those guarded halts of long ago, when smaller camp-fires were lighted, and men hardly dared to sleep for fear of lurking savages watching for a chance to begin their work of murder and destruction.

Life on the plains is less hazardous to-day than it was before the advent of the railway; but I doubt if the labor of living is less severe. One is not very apt to give particular thought as to how men gain a foothold, nor to the manner in which they begin their work of making farms out of the dull-hued prairie land. And yet the *modus operandi* might very likely be

studied with advantage. The task is not an easy one, we may be sure, and there are trials long and severe. There are many foreigners among the Nebraska farmers, and many of the new towns are German in everything but their appearance. That, to be frank, is American and Western; not interesting to look at, but thoroughly comforting to all who may be interested in the growth of our country. The rapidity with which Nebraska villages grow is most astonishing. The only pity is that with age and size they do not increase in beauty.

Early in the spring the plains are brilliant with carpetings of vari-colored flowers. They are scattered like brilliants over the vast rolling billows of earth, and, in contrast with the green of the grasses, give the country a richness of coloring which is indescribably attractive. As summer draws nearer the delicately tinted visitors of spring-time give way to an universal brownness. By July all freshness, and all coloring save that of brown, are lost. But the blueness of the sky remains, and that, together with the mellow brown of the plains, gives a sufficient contrast of tint to make the scene far from commonplace.

I can never decide which portion of the day I like best when on the prairies. Morning is delightfully fresh. The sun is a ball of fire when its first flashes of golden light come across the unbroken stretches, and the prairie dogs, demurely sitting on their hind legs, give it noisy greeting. Through the night you have been asleep. The dull rumble of the cars has soothed you to a rest such as you have not had Waking refreshed in mind and for months. body, and breathing in the fresh, clear air as you stand on the rear platform looking over the quiet country, life ceases to be a dull reality. You catch the spirit of the scene, and are alert. Then comes the long, idle day. The towns you pass are all in embryo. Some are more rudely built than others, but all are new, and each lays claim to distinction as being the centre of some region sure to attract in the future an enormous population. Here the railway follows a winding stream, that now hides beneath its sandy bed and again crawls lazily over it, and then passes through fields of growing corn, or, like a ship, rides gallantly over the rolling mounds that have been so often likened to the waves of a noiseless sea.

Nebraska may be said to have already had three distinct epochs in its history. The first was that in which the Indians held undisputed sway; the second that in which the forerunners of the present civilization began to make their memorable overland journeys; and the third that of the present progress. Of the first we have many traditions and some tangible information handed down by the ultra-adventurous who lived for a time among the Indians and studied their mode of life. Of the second we are better informed. In that second period brave old Ben Holliday had established his famous stage-line to and across the Rockies, and such observing travellers as Bayard Taylor and Samuel Bowles had made pilgrimages to the still doubtful quantity familiarly known as "the West." The amount of romance crowded into the period immediately preceding that which witnessed the advent of the railways would make many an interesting volume. Who today can begin to realize the hardships of the pioneers? If ever chivalry existed in this country, it had its reign while the emigrant trains were slowly traversing our Western plains. Kit Carson, Buffalo Bill, and other famous scouts have an unique place in history.

Little can be said of the third great period of Nebraska's history beyond that which is already known. The census will show the rapidity with which the country is being settled; and one has only to visit the region from year to year to note its steady progress in material development. In the near past Nebraska was chiefly famous as a grazing country. To-day it is one of the great farming regions of the middle West. Time was when the rainfall was insufficient to grow crops; but now even this disadvantage no longer exists. Year by year the rainfall increases. In explanation of this phenomenon — if it be a phenomenon — various causes are assigned: one theory being that moisture is attracted by cultivation of the soil: another that railroads are followed by rain-clouds; another that the oldtime hardness of the soil no longer exists, so that water is retained in the earth, and, evaporating, creates clouds that formerly had no source of existence. Whatever the reason may be, however, the fact remains that Nebraska, as well as its neighbors, has changed for the better, and can no longer, by any possibility, be regarded as a part of the Great American Desert which in our childhood days was represented as covering an alarmingly large area of our country.

A PRAIRIE TOWN.



One truth regarding it is that you do not become acquainted with its best or more interesting features by simply travelling through that portion of the country which the railway has chosen. One has passing glimpses of the many "prairie towns," which are so sure an indication of the actual progress being made; and there are isolated "dugouts" scattered along the way. But the largest and most productive farms are mostly well away from the railroad, and the peculiarities of life in a country so lately settled as Nebraska are only discovered by personal investigation. Study the pioneer Nepraskan, and you will not only be amused but instructed. His life is an altogether strange one, not resembling in the least that of any other man whose progress you have ever chanced to follow. His home is a dugout, or, if fortune has smiled upon him, an adobe, with a roof of sods, and his nearest neighbor lives twenty miles away. And yet I question if you will anywhere find more contentment than exists in these humble abodes. I know not what it is, - the climate, the hope of better times to come, perhaps, — but there is something which gives the homesteader that which few of us ever have, - the

power to smile when the outlook is darkest; a brave heart, no matter what the trials are. You will find lone women in the single-room dugouts, and you will also find whole families there. One can never fail to detect any real progress in the family welfare; for with better circumstances comes the cabin, — a degree above that of the dugout, — and following the cabin the ugly but still comfortable frame house.

Mr. Frank H. Spearman, in a paper on the American Desert, published in "Harper's Magazine" for July, 1888, says that the "first settler, with rare exceptions, ekes out a half-starved existence until he can make proof on his land; by this time he is eager to sell to one of the second crop of pioneers, — men who bring a little money with them to fight the battle with. As a rule, though, the necessity of incurring debts to keep things going beats this second class, and they in turn give way to the thrifty farmers who come prepared and able to stav. For it must not be supposed that the original homesteader is necessarily a farmer. You will find all sorts and conditions of men among them, from ministers to cowboys, from bankrupt business men to the latest exile from Russia. All

of these, together with professional men and tradesmen in the villages and a fair sprinkling of *bona fide* farmers, appear in the ranks of the homesteaders."

As illustrative of the rapid rate at which Nebraska is now being settled, Mr. Spearman quotes from an address delivered at the Chevenne County, Nebraska, fair in the fall of 1887. "General Morrow," he writes, "instances eightythree thousand acres of land entered by homesteaders in a single county during three months of 1887. All the land officers of the West tell the same story: their statistics sound like fables. The United States Land Office for the extreme southwestern part of Nebraska, embracing but a few counties, remitted last year to Washington \$500,000 to pay for homesteads and pre-emption." Continuing, the writer says that Omaha, Kansas City, and other large centres are "simply a reflection of the farms of Kansas and Nebraska, and are dependent entirely on the desert for their business."

It is a little startling—because showing into what errors of prophecy our ignorance may lead us—to notice, as Mr. Spearman does, that in 1858 the "North American Review" said that

our people, at that date, when there was scarcely a hamlet forty miles west of the Missouri River, "had already reached their inland frontier." Before the end of 1880 the population of Nebraska numbered half a million. To-day, Mr. Spearman says, the State has twice that many people, and the cities of from three thousand to fifteen thousand inhabitants that have attained their present size within the past few years are evidence in themselves of the substantial development of the new West.

The average altitude of the country bordering the Missouri River is from fifteen hundred to eighteen hundred feet above the level of the sea. At the base of the Rocky Mountains the elevation has increased to nearly six thousand feet. The slope from mountain to river is gradual and hardly perceptible. You are every day conscious of certain atmospheric changes and of the fact that the sunshine has at length become continuous. But no hills are climbed, and at a casual glance your surroundings are always the same.

"Nebraska is noted for the great number of its sunshiny days," says the writer whom I have so often quoted. "The catarrhs and rheums. the neuralgia and the consumption, of the East are unknown, except such cases as were contracted elsewhere. Although in summer the thermometer ranges very high, sultry heat is, of course, an impossibility at such an altitude. To be perfectly comfortable in the hottest weather, it is necessary only to keep out of the direct rays of the sun; the nights are always cool." The soil of the State is easily cultivated, and is of surprising richness. It extends to a great depth, and is most easily tilled. Trees are fast being planted in and around every new town, and irrigating canals have been dug to convey the waters of the numerous "creeks," or small streams, to wherever the soil needed The destructive Dakota blizzard sweeps down upon the open prairies at times, but such visitations are rare. As a rule the winters are mild and invigorating. One rarely feels fatigue; and life, to those once initiated, has charms which we, perhaps, noting so carelessly, cannot appreciate nor understand.

It is an all-day's journey from Omaha to Denver. Leaving the former city in the morning, you retire at night with the consciousness that all around you—to the north, south, east, and

west—there is only the rolling prairie, brown, far-reaching, restful to one whose eyes are tired of other sights. In the morning the scene has changed. Before you—a dark-blue wall cutting its way north and south—are the Rockies, the Alps of America. Their higher peaks are white with snow, and glisten like pinnacles of purest ice.

How beautiful they are, these mountains of stupendous height, how grandly outlined, of what overpowering size, only he who has looked upon them from the plains can understand. They are as fascinating as is, to many, the ocean. You long to reach them, to be near enough to study their contours, to see their ever-changing lights and shadows. In the early morning they are softened by a thin blue haze. They seem as light as air, and one doubts if the snow patches are not clouds. When first sighting the higher peaks you are forty or sixty, even a hundred, miles east of Denver; and yet the air is so clear, the distance so deceptive, that you cannot realize how far away you are from what you see. Many a worn-out pioneer, trudging beside his wagon with its painted sign, "Pike's Peak or Bust," has thought his journey ended when the

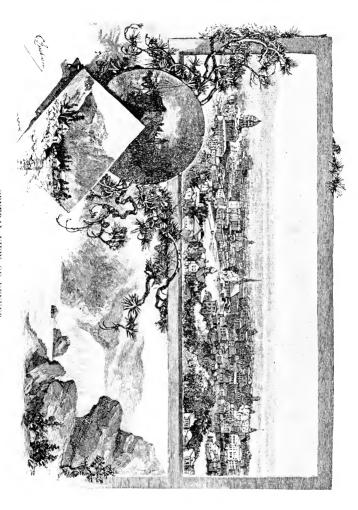
snow peaks first flashed their light upon him. And yet I venture to say that many a hope was doomed to disappointment, and that, even within sight of the long-sought goal, the journey of life was ended.

But for us, in our Pullman, no danger menaces. As we look, the huge bulwarks grow more and more clearly outlined. Lesser peaks leap into view beyond the limits of the plains; the forest-crowned foothills begin to lend their bit of coloring to the scene. Soon the outlying towns of Colorado's great city are crowded about us. The listlessness of portions of the day before departs. We have crossed the plains and are on the outskirts of Denver.

CHAPTER II.

THE CITY OF DENVER.

NO one would have dared claim for Denver, a quarter of a century ago, the proud position that it holds at this time. Then it was a mere village, without wealth, without influence, remote, and unsightly. Now it is a metropolis, a centre of refinement, a place rich in itself, and the admiration of all beholders. More than keeping pace with the phenomenal growth of a region that is still in its infancy, so far as development is concerned, it has lost no opportunity and neglected no chance. Active, keenly alive, progressive, and vigorous, it has turned to its own account the fortunes of the State of which it is the capital, and has secured by every means in its power the reputation it to-day en-When the history of the far West is written, and the causes of that growth and development which we now applaud are analyzed, it will be seen that Denver has often been the





power behind the throne. Her capital and her people have protected new ventures, and kept alive the confidence in the future of the State. Through days of financial disaster, through all vicissitudes, there can be found no diminution of the faith that at last has been rewarded by the growth of a great city in close proximity to the region that as long ago as 1806 tempted the valiant Pike to cross the unknown plains lying beyond the muddy waters of the Missouri.

Like a romance is the story of Colorado's growth, and not less so is that of the growth of Denver. We miss finding in its history the fanciful doings of Spanish adventurer and pious padre. No fierce wars were ever waged for its possession, no glittering pageants were ever held in the long wide streets, with their vista of mountains and plains. There was little that was poetical, but much that was practical. Still the story is as interesting as though there had been these well-worn episodes to draw upon and to magnify and render picturesque; for the tale is of how man came to a wilderness and lived down all trials and all disappointments, how he fought against great odds and battled with hardships, and came out victorious. And if we are

not satisfied with the practical realities presented, and still desire some glitter of gold to lighten the narrative, we have but to turn to the mountains. In their wild fastnesses will be found the foundation of all the romance we wish.

It is not an easy matter to describe Denver. It is so similar to other cities in many respects. that one feels doubtful about the propriety or the necessity of mentioning many of its prominent features, and is in danger of forgetting that what may seem only ordinary is, in reality, most extraordinary. If the city were less substantial in appearance, or possessed certain glaring peculiarities, it would be much easier to describe. But it so belies its age, and seems so much older than it really is, that one falls to taking for granted that which should be surprising. Wide, shaded streets, handsome residences surrounded by spacious grounds, noble public buildings, and the many luxuries of city life tempt one to forget that Denver has gained all these excellences in less than twenty-five years. Every tree that one sees has been planted and tended; every attractive feature is the result of good judgment and careful industry. Nature





gave Denver the mountains which the city looks out upon; but beyond those hills and the bright sky and the limitless plains, she gave nothing to the place, which one has only to see to admire. The site originally was a barren waste, dry and hilly. Never was it green, except perchance in early spring; and not a tree grew, save a few low bushes clinging to the banks of the river.

Surrounded on the east, south, and north by the prairies, and on the west by the mountains, with their treasures of gold, silver, coal, iron, and lead, Denver is the natural concentrator of all the productions of Colorado. From it are sent forth the capital, the machinery, and the thousand and one other necessities of a constantly increasing number of people engaged in developing a new country.

From Capitol Hill, a rounded height formerly on the eastern outskirts of Denver, but now not far from its centre, is obtained the best view of the city. At one's feet the contrast between the present and the past is most marked. Gone are the sanded gardens with their weeds; the cabins of earlier days are nowhere to be found. A city lies grouped around the hill. From the height you can look down upon the score of

church steeples and the flat roofs of business blocks; and in the distance lie the plains, no longer dry and brown, but dotted with farms and the bright new houses of those who have come to the West and accepted it as their home.

Denver was born of the first Pike's Peak gold excitement in 1858-59, and in 1860 was a straggling camp of log-cabins and tents. From this time the population of what is now Colorado rapidly increased. In August, 1860, there were as many as sixty thousand people engaged in mining, and one hundred and seventy-five quartz-mills had been erected, at a cost of \$1,800,000. Denver during this era became the acknowledged base of supplies. The camp was centrally located, and was, moreover, a station on the Ben Holliday route across the continent. When the mining excitement subsided, as it had by 1865, Denver was too firmly established to be materially affected by the change in the fortunes of the State. Its population, indeed, was considerably larger than when the excitement ran highest. While many of the districts failed to meet expectations, there were a few that proved richer than had been anticipated. Among these was the Clear Creek territory, forty miles west of Denver. The towns, or camps, in that district continued to hold their own, and were the main-stay of the settlement near the junction of Cherry Creek and the Platte. To Central City, Black Hawk, and Georgetown, Denver may be said to owe its continuance during that period when the future of Colorado was most uncertain. Had they failed, and the mines there proved unproductive, it may well be doubted if Denver could have maintained its existence.

"The Queen City of the Plains," as the Denverites fondly call their much-admired city, has not escaped its trials. In 1873 the financial shadow in the East swept to it across the plains, and in 1875 and 1876 the grasshopper plague, by which all crops were destroyed, caused large sums of money to be drawn from Denver to pay for wheat and flour. The banks were seriously cramped during this unfortunate time, and all speculation ended. But the failures were unimportant, and the faithful only worked the harder to prove that Colorado was the centre of vast wealth.

In 1877 the cloud lifted. The harvest was

abundant, the export of beeves was the largest ever known. More than \$15,000,000 was added to the wealth of the miners, stockmen, and farmers. Speculation revived. Money became easy, and confidence wide-spread. Capital poured into the State, and there was a development of industries never known before. Leadville was born, and he who had a dollar to invest sought Colorado securities. Railways fought for right of way to mining towns, and the plains were dotted with wagon trains. For nearly six years the excitement continued; and Denver, through all the activity alive to her own interests, which she carefully guarded and nourished, throve as never before.

And then, in 1883, came the inevitable reaction. The pulse of trade and speculation had beat too rapidly. Some ventures failed, and others were abandoned because of these failures. The reckless suddenly became conservative. Investors hesitated to invest. Loans were called, and a depression of values followed. But considering the advance that had been scored, the retrograde movement was immaterial. In the language of the stock exchanges, it was a "healthy reaction," and eventually did more

good than harm. It enabled men to rest and to study the situation.

By the end of 1886 confidence slowly returned. In that year the State again entered upon a season of prosperity; and in sympathy Denver's sun shone once more, and its clouds were dispersed. By January, 1887, the tide had perceptibly turned. The activity in commercial circles became greater than ever. Old valuations were more than re-established, and the population was nearly seventy thousand. It was found that the mines had produced a grand total of over \$26,000,000 in 1886, and therefore mining received a new impetus. In 1885 permits for the erection of four hundred and three new improvements in Denver were issued by the Building Inspector; in 1886 he issued seven hundred and nine permits, the cost of the improvements being \$2,000,661. In 1885 the total valuation of the State was \$115,450,193.90; in 1886 it was \$124,269,710.06; and in 1887 amounted to \$141,314,329, the greatest gain being in Arapahoe County. Among the banks of Denver the year 1886 showed that the surplus funds and undivided profits had decreased \$128,945.26 as compared with 1885,

while the deposits had increased \$2,107,633.02, or twenty-three per cent. The loans and overdrafts had also increased twenty-three per cent.

The welcome facts, giving assurance of progress, and showing a more healthy condition of affairs in the various trades and mercantile institutions, afforded a promising outlook for the new year. Nor, as it proved, were the signs premature or misleading. The real-estate sales for 1887 amounted to \$29,345,451.82, an increase of \$18,324,242.91 over those for 1886. Six churches, three school-houses, nearly nine hundred dwellings, several new business blocks, and thirty-five miscellaneous buildings were erected. The total value of improvements in the city proper was \$2,971,770, and for Denver and its suburbs was nearly \$5,000,000.

It would be untrue to say of Denver that it was "literary to the core," or that it was the "Athens of the West." So far as I know, it never claimed such distinction. It is not a literary centre, and yet it does not want for literature. A lecture on "Burns" might not prove so attractive as one on "Our Mines" or "Our Commerce;" but because this is so the inference need not be drawn that a Denverite never

reads, or that he does not know who Bobby Burns was. The people of Denver have not yet gotten over being practical. There never has been a Browning craze, and Oscar Wilde was caricatured in the streets. There are ripe scholars and diligent readers in Denver, as in other places of equal size. Indeed, the claim is made that there are more resident college graduates



THE STATE CAPITOL.

than in any other city of the same number of people. Therefore one may be safe in believing that the literary sense is keener than would casually appear to be the case. And yet in the sense that Boston is literary Denver is not. Perhaps in the daily papers there is evidence at times of a lack of careful attention to Addison. But when it comes to news-gathering, let the journals of the East beware. The history of the world's doings is laid beside the plate of every Denverite in the morning, and no question of the day is too profound for the editor to discuss.

Denver has not yet become so literary as to warrant the establishment of large publishing houses, but there are several wholesale and retail bookstores, and in one is a list of books as large as may be found in any New York bookstore. This fact is not, perhaps, important in itself, but as evidence of the moral and intellectual growth of the city, it is. Denver is young in years, let us remember, and is the outcome of a place having little regard for things of a bookish nature. It is natural that many crudities should have been buried with the pioneers, and yet it is no less praiseworthy that Denver should so generally have accepted the more modern conditions of life.

Socially, Denver may be called a charming place. The security afforded by the active enforcement of good laws has drawn together a

class of people such as is found in towns of a muc'i more prosaic origin and greater age. Society, in the truest sense of the word, is cosmopolitan. There are constant arrivals and departures. No titled foreigner feels he has seen the "States" if he omits Denver, and our own countrymen endeavor to visit the city during their tour of the West. People of refinement make Denver their home for a season, and often adopt it for a lifetime. It is astonishing at times to notice the effect of Western life upon natures long accustomed to self-contemplation and esteem. It is the air of Colorado, perhaps, that so often changes the Eastern man, and leads him to appreciate the truth of the phrase regarding general equality which the signers of the Declaration framed Or, if not this, then something else works the transformation, and gives us most fortunately a whole-souled being who is glad to see you when you pay him a visit, and who does all in his power to render your stay delightful.

It must not be imagined, however, that with all the good-fellowship there is not the proper amount of conservatism. One is not waylaid upon the street and presented with the freedom of the houses he sees. Shoddyism exists, — as where does it not? — and there is a manifest delight in certain quarters to make a lavish display of newly acquired wealth. But circles within the circle may be found, and those with the shortest diameter are the most agreeable as well as the less conspicuous. Proper presentation means as much in Denver as it does in New York or Boston.

The three great industries of Colorado mining, agriculture, and stock-raising - are those from which Denver derives its chief support. As a mining region, Colorado has made an enviable record. The total yield of the State in gold and silver now exceeds \$200,000,000. It is estimated that one hundred thousand lodes have been discovered, besides numerous placers. Silver was not found until 1870, but in 1886 the yield of that metal amounted to \$16,450,921. Among the ores produced are gold, tellurium, copper, iron, and lead. At Denver is made much of the machinery used at the various camps, and to its furnaces and smelters is shipped a large proportion of the precious ores. Shipments from the Boston and Colorado Smelting Works at Argo, on the outskirts of Denver,

amounted in 1887 to \$3,767,685, and those from the Omaha and Grant Smelter in 1886 to \$8,053,143. Still another smelting company has been formed, which uses every modern appliance and improvement. These three concerns make Denver the largest smelting point outside of Leadville, and afford employment to a small army of men.

As an ore market, Denver is important. For 1887 there were 15,806 car-loads of ore received in the city. Allowing 131/2 tons to each car, the daily receipts amounted to 584 tons. The deposits at the Mint during 1887 had a value of \$1,843,891.90, — a gain over 1886 of twenty-eight per cent. The modern practice of buying and selling ore through men known as public samplers is constantly growing in favor. The Denver Public Sampling-Works handled and sold in 1886 over 44,000,000 pounds, or nearly 22,000 tons, as against 13,433 tons in 1885. The value of the ore sold in 1886 was \$1,243,360.84, — an average of \$56.59 per ton. The ore which is received comes not only from Colorado, but from New Mexico and old Mexico, Montana, Arizona, Idaho, Oregon, Nevada, and even from South America.

Agriculture in Colorado is comparatively in its infancy. Not until later days has the industry been given much attention. Now, however, by a system of irrigation that renders long-neglected lands productive, it is fairly launched. The area of farming land has been widely extended. Immense tracts of government land have been put under water and cultivation. Wherever it was possible on the Arkansas, Rio Grande, San Juan, Dolores, Gunnison, and other rivers, canals for irrigation have been projected. and water taken out, to reclaim vast areas that were once considered worthless. In his surveys Professor Hayden estimated that Colorado contained not less than six million acres of agricultural land. From reports made by the Land-Office in Denver up to 1885, over four million acres of that amount had been taken up. In 1885 nearly nine hundred thousand more acres were added, and in 1886 fully one million acres, thus making more than the original estimate. The crops for 1886 amounted to 2,100,000 bushels of wheat, 600,000 bushels of oats, 250,000 bushels of barley, and 175,000 bushels of corn. The total value of the agricultural products does not fall much below \$12,000,000 annually. Seed

is purchased at the Denver markets, agricultural implements are made and sold there, and the cereals are returned to the local flouring mills.

The third source of Denver's revenue is from cattle and sheep. The herds are raised in nearly every part of the State, and millions of money are invested in the industry. For 1887 the State assessors estimated the number of animals and their valuation as follows:—

					No.	Valuation.
Horses					148,027	\$5,042,480
Mules					7,560	544,865
Sheep					685,725	877,913
Cattle					894.439	10,634.355
Hogs					15,833	51,573
Other animals						56,963

According to other estimates there are fully 1,500,000 sheep in Colorado, the wool clip from which would be not less than \$1,500,000. Exact figures are hard to obtain. Cattle are being constantly improved by the introduction of "blooded" stock. In 1886 there were 122,678 cattle shipped from Colorado to Eastern markets, as against 75,579 head shipped in 1885. Denver capital is largely invested in the industry, and the fortunes of many of her people have been made in it. The city is the chief hide,

wool, and tallow market in the State, and several of the banks are founded on capital made in former years by the cattle kings.

In addition to these sources of wealth Denver has her home commerce, foundries, streetrailway systems, and list of taxable property. The total revenue of the city for 1886 was \$452,648.39, the item for taxes alone being \$301,362.42. The assessed valuation of Arapahoe County, of which Denver is the seat, was \$11,093,520 in 1878, \$38,374,920 in 1886, and \$47,037,574 in 1887. The rate of taxation in that time had been reduced from 20.9 mills to 9.7. The growth of Denver's manufacturing industries has been rapid. For 1887 the increase was between twenty and twenty-five per cent. In 1885 the total value of the product of manufactures in the city was \$20,293,650; in 1886, it was \$24,045,006, and there were 219 manufacturing establishments, employing 4,056 men, the annual pay-roll being \$2,100,998. As nearly as can be approximated, the statistics for 1887 will be as follows: number of establishments, 240; number of employees, 5,000; amount of wages, \$3,000,000; value of product, \$30,000,000.

The water supply of Denver is more than abun-

dant. In many instances water for drinking purposes is taken from artesian wells, more than a hundred of which have been bored since 1883. Some are sunk to a depth of 1,125 feet. The first flow was struck at 350 feet, the second at 525, the third at 555, and the fourth at 625. Six successful wells were bored in 1885, and eight in 1886. Water from these wells is deliciously pure and cold, and flows from the faucets with sparkling brilliancy.

For irrigation purposes water is brought by a system of ditches from a source twelve miles south of the city. For other uses it is taken from the Platte, and forced by the Holly system into every building. There are fifty miles of distributing mains, and the annual supply is seventeen hundred millions of gallons,—an average of nearly five million gallons per day. A company now proposes bringing water by gravity from Cherry Creek to a reservoir overlooking the city, thus obviating the necessity of pumping.

The material attractions of Denver have not been gained at the expense of the immaterial ones. The city prides itself upon its many churches, schools, and public buildings. Gas and electricity are both in use, and there is an extended horse-railway system that connects all parts of the city and reaches far into the suburbs. As a city of churches, Denver ranks next to Brooklyn. There are sixty-two, all told,—or one for every twelve hundred inhabitants. A new Unitarian church is being erected, which, with the land it occupies, will cost \$55,000; the design is Romanesque. The Catholics purpose soon to build an imposing cathedral; a corporation with a stock of \$50,000 has already been organized for a cathedral fund. St. John's Cathedral (Protestant Episcopal) is one of the prominent buildings of the city; the design of the crucifixion in one of the windows is said to be the largest in the world.

Next to her churches, the city is proud of her schools. They are numerous and ably managed. School district No. 1 includes that part of Denver lying east of the Platte and Cherry Creek, and extends four miles down the Platte and several miles eastward to the plains. It is of an independent character, and was chartered before the adoption of the State constitution. The property has an assessed valuation of about \$29,000,000. A special tax levy of four and a

half mills is made for school purposes, and from five thousand to eight thousand children are in daily attendance. A new High-School and Library building is now being erected. It will cost \$200,000. There are fourteen schools in district No. 1, and one hundred and twenty teachers are employed.

In West Denver are five school buildings and nearly two thousand pupils. In North Denver the several institutions have an enrolment of about twelve hundred children. Besides the public schools there are the Denver University, soon to have new quarters; Jarvis Hall, a private school for boys; St. Mary's School, under the direction of the Sisters of Loretto; and Wolfe Hall, an advanced seminary for young ladies.

As a railroad centre, Denver is fast becoming as important as either Kansas City or Omaha. The new Union Station is one of the largest and handsomest buildings in Denver. It is built almost entirely of native stone, and is five hundred and three feet long by sixty-nine feet wide. The central tower is one hundred and sixty-five feet high, and contains an illuminated clock. Two hundred thousand pieces of baggage were

handled there in 1886, and the passenger business was larger than ever before.

The railway communication which Denver has with the different productive districts of the State has been considerably extended by the new Colorado Midland Road, extending from Colorado Springs, seventy-five miles south of Denver, to Leadville. It passes through the heart of the State, and when completed beyond its present terminus will enter Utah, and connect there with the Utah Midland,—a proposed new line to the Pacific. The Colorado Midland now uses the newly laid track of the Atchison road between Denver and Colorado Springs. Eventually it will use that of the Denver, Texas & Gulf, or possibly become a part of the Missouri Pacific system. Still another road of direct benefit to Denver is the Texas, Santa Fé & Northern. It connects the Rio Grande and the Atchison at Santa Fé, New Mexico, and gives Denver a nearly direct route into the Southwest, — old Mexico and the cities along the Gulf of Mexico and in Texas. The Fort Worth and Gulf road was finished in the spring of 1888. By it Denver has a broad-gauge route to the Gulf.

The trade of Denver for 1886, including the product of her manufactories, amounted to over \$72,000,000. Of this sum the smelters produced \$10,000,000. The real-estate sales, as recorded, were nearly \$11,000,000. Following the depression of a few years ago has come no "boom" or unwarranted advance. The sales for 1886–87 were large, but were the result of an active and legitimate demand.

The business portion of Denver is continually expanding. The centre of trade in the future will be near the County Court-house, and eventually surround that spacious structure. Lands that a few years ago were far outside the city limits are so no longer. Capitol Hill, which in 1882 contained not more than one or two houses, is now nearly covered with large and expensive residences. Residence streets have been rapidly absorbed by business interests, and there is a continual growth away from the old centre down by the junction of the Platte and Cherry.

The streets, houses, and public buildings of Denver are most attractive. Bright-red brick and yellow stone are the favorite materials of construction, and the effect of this combination gives the city a peculiarly pleasing appearance. The number of public buildings is still limited, but is being rapidly increased. The City Hall, Tabor



THE OPERA HOUSE.

Opera-house, Duff Block, County Court-house, and mercantile blocks would be a credit to any city. The streets are not paved, and at times are uncomfortably muddy. In the residence quarter

rows of trees line each thoroughfare, and there are streams of water coursing past them. In many cases the houses are surrounded by lawns and gardens. Especially is this true of those on Capitol Hill.

Besides its County Court-house, Denver will soon have the Capitol Building. It is now being constructed, and will cost a million of dollars. Ground for its reception was first broken on the 6th of July, 1886, and the foundations for the stone-work were completed the following November. The Corinthian order of architecture has been adopted, and the stone for the front walls will be from the sandstone quarries of Gunnison County. Georgetown granite will be used in the foundations, and other portions of the building will be of stone obtained from the quarries at Stout, in Laramie County. The building will be severely simple, having no dome or minarets, and will be three hundred and eighty-three feet long and three hundred and thirteen feet wide. It is to stand on Capitol Hill, and overlook the entire city and its varied surroundings.

The climatic advantages of Denver, like those of Colorado in general, have often been de-

scribed, and are now tolerably familiar to all. A clear, invigorating air, cool nights even in midsummer, mild days in winter, with now and then a season of extreme dry cold, are the chief characteristics of this highly favored place. One enjoying these blessings is loath to leave the city. Rarely is the sky obscured. Almost to a certainty one may plan for the pleasures of a week ahead. For sufferers from throat and lung troubles, Denver is a natural sanatorium; and now that it has every comfort of life, and has become staid and conservative, it will add to its population every year, and tempt to itself those who no longer are able or willing to brave the discomforts of older but much less-favored centres

CHAPTER III.

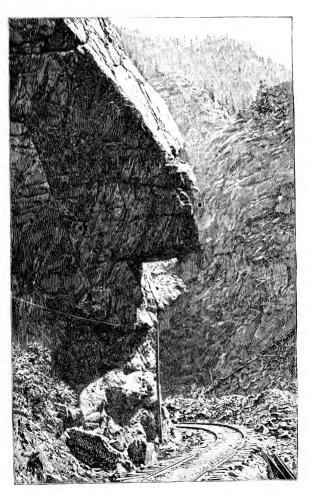
CLEAR CREEK AND ITS SURROUNDINGS.

BESIDES its successful attempts to obtain control of the country lying south and west, Denver was not so blind to its interests as to neglect the productive territory of its north-western surroundings. It is this district which the Union Pacific controls. The country is the first that was developed in Colorado. The old placer claims there yielded fabulous sums of money, and to-day the mines in and around Georgetown have a yearly output that adds materially to the wealth of Colorado.

No better illustration of this fact can be given, perhaps, than by taking the report of the United States Mint at Denver for 1886. The total operations of that concern for the year aggregated \$1,500,000. Of this sum Colorado furnished \$1,303,807.87, the largest producing counties being Boulder, with an output of \$20,771.46;

Chaffee, \$65,602.81; Clear Creek, \$18,575.31; and Gilpin, \$686,793.15. They were famous long before Leadville was thought of, and together form a district of vast wealth and possibilities. The Union Pacific branches give them all necessary transportation facilities, and the nearness of the Denver ore market enables a resident miner to dispose of his product, no matter how small it may be.

The main lines of the Union Pacific system are the South Park and the Colorado Central. Both the roads are good examples of modern engineering, and the country which they develop is as interesting a bit of Colorado as you can find, or would wish to see. It has no end of picturesqueness, and is like an offspring of Switzerland, being overrun with mountains and containing a half score of little villages that are snugly tucked away among the narrow valleys which the ranges have formed. Passing a few days in this district will give one the best possible idea of what Colorado is like; and more than this, it will enable him to visit some of the best-paying mines in the State, and to study the old placer-mining industry, which now, alas! is nearing the end of its golden existence.



HANGING ROCK, CLEAR CREEK CAÑON.

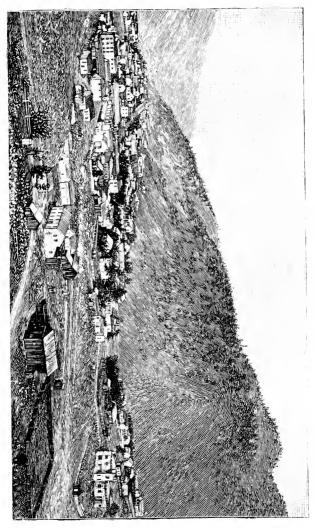


The best-known towns of the district are Georgetown, Idaho Springs, Central City, Black Hawk, Boulder, and Fort Collins. The Union Pacific has extended branch lines to these several centres, and good hotels have been built at places most convenient to outlying regions of interest, such as Middle and Estes Parks.

An hour's ride from Denver brings one within the very embrace of the mountains. For the first fifteen miles the country is comparatively level. There is a succession of farms, each with its fields of bright green alfalfa, and in the near distance are the foothills, so closely packed together, and with the heights behind them so formidable in appearance, that one questions the ability of the railway to find an entrance to their protected valleys. But long before one's doubts are dispelled the outside world is lost to view. Suddenly, almost mysteriously, the gateway is entered, and one is fast within the enchanting region. Towering high above are the stupendous cliffs; near the track rushes a foaming mountain stream. The rocks are dull-hued; the river is alive with light, and is as clear as crystal. The canon echoes with the noise of the on-rushing train; and the deeper you penetrate into the heart of the range, the narrower and more gloomy the little pathway becomes.

Just beyond the deepest part of Clear Creek Cañon — as this winding road to the country west of Denver is called — is Idaho Springs, a mountain-surrounded hamlet of inviting aspect, and famous for its healing waters and invigorating air. Its elevation is seven thousand five hundred feet above sea-level, and the hot springs contain chemical constituents almost identical with those of the celebrated Carlsbad Springs of Germany. The waters range in temperature from 85° to 120° Fahrenheit, and artificial heat is never required. Bath-houses have been erected near the town, and the village is filled with seekers after health.

Perhaps the most interesting feature of the town is the so-called "hot cavern." This strange formation extends far into the Santa Fé Mountain, and is filled with a vapory warmth generated from the waters that ooze from the flinty walls of the gloomy recess. In the centre of the cavern is a large pool of heated water, in which one may enjoy a Turkish bath amid surroundings that, if not palatial, are at least strange and phenomenal. Consumptives and those





whom rheumatism has afflicted flock to Idaho Springs by thousands. Many of the visitors, whose ailments have disappeared in the place, are loath to leave its bracing air, and have built themselves picturesque little homes that do much toward making the town attractive. One noteworthy house is fashioned after a castle of the Rhine. Towers of stone guard its corners, and there are quaint gables and narrow windows.

In the days of its early history, Idaho Springs was a famous mining centre. You can still see where the busy army of workers washed the earth for its golden treasures, and in the mountain sides are the tunnels that were bored when the excitement was at its height. Placer mining is no longer attempted to any extent; but shafts are still sunk, and the yield of ore from mines near the town is not inconsiderable.

The county seat of Clear Creek County is Georgetown, fifty miles west of Denver. In the neighborhood of this village, which rests in the very lap of high hills, are some of the deepest and richest mines in Colorado. I know of no place in the State where one can gain a better insight into the mysteries of mining than here. The people thrive on the industry, and the streets are alive with miners. From the hotel one can hear the noise of stamp mills, and at night look up at the lights which denote the location on the mountain slopes of the almost countless claims.

A mile and a quarter beyond Georgetown is Silver Plume, a rich mining camp which the railroad has reached by means of the justly famous "Big Loop,"—an engineering achievement that illustrates the great progress made in later years by the builders of our railways. In England a roadbed has a nearly continuous level. In America, and especially in the West, the opposite is the rule. In 1852 the climbing capabilities of a locomotive were first discovered. A zigzag gradient of ten per cent — that is, ten feet rise in one hundred feet long, or five hundred and twenty-eight feet per mile - was made in that year over a hill about two miles long. A locomotive weighing twenty-eight tons on its drivers took one car weighing fifteen tons over this line in safety. The present average gradient is four per cent. Another invention for mountain climbing is the switch-back, by which the gradient is eased by running the line backward and forward in a zigzag course, instead of making a direct ascent. The device was first employed more than forty years ago, and has been used on the Atchison and Northern Pacific Roads until a very recent period.

With the improvement of brakes and other devices, came the development of the Loop. It was first applied by the Denver and Rio Grande Railroad, and later by the Saint Gothard Road, the Black Forest Railways of Germany, and the Semmering line in the Tyrol. The device, as explained by a recent authority on railway construction, is to connect the two lines of the zigzag by a curve at the point of intersection, so that the train, instead of going alternately backward and forward, now runs on continuously. By aid of the "loop" it is possible for a line to return above itself in spiral form, crossing the lower level by either bridge or tunnel. One instance of this achievement is at Tehachapi Pass, on the Southern Pacific road in California, and the other is on the Union Pacific between Georgetown and Silver Plume. At Tehachapi the line ascends 2,674 feet in twenty-five miles. There are eleven tunnels and one spiral 3,800 feet long. At Georgetown the direct distance is one and a quarter miles, and the elevation

six hundred feet, requiring a gradient of four hundred and eighty feet per mile. By means of spirals the length of road is increased to four miles, and the gradient reduced to one hundred and fifty feet per mile.

One need not be an expert in railway construction, however, to enjoy the ride to Silver Plume. Even those most utterly ignorant of scientific principles will find much to interest them. The valley is very narrow, the hills very high, the air most exhilarating. Ascending, the track lies coiled far below you; and at Graymont, the actual terminus, you are high above the eight thousand feet level of Georgetown, and almost within the shadow of Gray's Peak, that beaconlike sentinel of the Rocky Mountains which stands guard over the shaded levels of Middle Park.

The Colorado Parks are isolated mountain resorts of peculiar attractiveness. In winter they are filled with snow, and deserted. In summer the grasses are green on their levels, and the air is delightful. The Parks west of Denver are Estes, North, Middle, and South. Together, they form a region that has a beauty purely natural. Game abounds in the forests, and the streams are filled with trout. No railways have

dared, or cared, to enter the mountain-surrounded and indescribably picturesque quarters, and the only visitors are those who come to enjoy the restful quiet or the abundant sport. Log-cabins are the rule. In them you live, and from them take your rides across the open fields to the mountains and forests. Nothing is conventional or prosaic. From Middle Park your view of Gray's Peak is unobstructed; and from Estes you can see the white crest of Long's, looking down from its superb height of more than four-teen thousand feet. So surrounded are you by snowy summits that you can easily forget you are in Colorado. The country is Switzerland, as full of delightful surprises and as grandly fashioned.

Those who can, should give a month to the Parks and to that district in which are Georgetown and the various other settlements that the railway has created. There will never, I promise, be an idle, listless day in all that time. If fond of climbing, you can scale Long's Peak or Gray's, gaining, for your trouble, such views as can only be suggested, not described; and if fond of hunting, you can enjoy the sport to your heart's content. Nature's gifts, in fact, are at your disposal to use how and when you will.

Nor need one forget to study during his month of pleasuring. The country over which he journeys is one of great actualities and many possibilities. Its mines, in many instances, are older than Denver. In the valleys are some of the richest agricultural districts in the State; the forests are vast and of great value. In time, no doubt, the iron hand of progress and development will be stretched forth from Denver, and that which now seems so isolated will be brought within the great circle of commercial activity. Places that to-day are towns are very likely to grow into cities. Even the Parks may lose their quiet and become the centres of fashionable life. The region has already yielded its many millions; it will yield as many more. Development is still in its infancy.

So before the great change comes let us gain an intimate acquaintance with this beautiful district. The scenery will prepare us to enjoy that which we shall find during our idle journey. It will whet our appetite for Nature's gifts. Drinking the healing waters, bathing in the mountain streams, inhaling the pure, fresh air, who is there that will not forget his cares? At Boulder or Georgetown, one is in the im-

mediate neighborhood of as much wildness of nature as is possible to be found in Colorado. In half a day's drive from either town the forests are virgin and the valleys unmolested.

The Colorado, or Front, Range, which is the first to greet the traveller approaching the city of Denver from the east, may easily be mistaken as representing the entire Rocky Mountain sys-As a matter of fact, however, it is but one of three parallel chains which trend nearly due north and south through northwestern Colorado. Behind it rise the Mosquito and Sawatch Ranges, both having an altitude fully as great as that of the range overlooking the eastern plains, and possessing the same interesting scenic features.

Were it not for this wise subdivision the interior districts of Colorado would be practically inaccessible. As it is they are easily reached by means of the valleys which lie between the several ranges, and one may wander wherever he pleases, either to the Parks already mentioned, or to the wilder districts surrounding the westernmost chains. The slopes of the Colorado Range are deeply scored by canons similar to that of Clear Creek, and its streams run eastward to the river Platte. In the Mosquito the western

flanks of the mountains are characterized by broken, abrupt, nearly perpendicular walls, from which open deep canons of glacial origin. On the eastern slopes the forests extend from the level of the valley to the line of perpetual snow. The Sawatch Range, from a geologic if not from a picturesque point of view, is the most interesting of all the divisions. On its rocky slopes is written the eventful history of the country it dominates. It was an island once, and the vast area occupied by the Mosquito Mountains and the Upper Arkansas Valley was the littoral region of an Archæan continent. The Rocky Mountain chain in this latitude consisted, in fact, of a series of Archæan islands or continents. which have never been entirely submerged. only on the Sawatch Range is the story clearly told

The valley lying between the Mosquito and Front Ranges is known as the South Park. It is a broad, basin-like depression, and slopes gently to the southward. Its elevation is eight thousand to ten thousand feet above sea-level, and there are many picturesque effects to be enjoyed. West of South Park is the Arkansas River Valley, less than sixteen miles wide, but

nearly sixty miles long. At its upper end, occupying an elevated site on the Mosquito Range, is the city of Leadville, and farther down the valley is the narrow gateway known as the Royal Gorge, or Grand Cañon of the Arkansas. In the ante-railroad days the valley was an isolated region shut in by mountains on every side, and with only narrow trails as outlets to the country round about. To-day it is a populous district, famous for its natural beauty, for its vast mineral wealth, and as the site of the largest young mining city in the world.

One of the branches of the Union Pacific system extends through the South Park and Platte River Cañon to Breckenridge and Leadville, and over the Alpine Pass to the Gunnison country, — a Pennsylvania-like region of coal, wood, iron, and other natural products. Leadville has lost none of its interest since the days when it was famous throughout the world. It is still the largest mining camp in Colorado, and its yield of ore is fabulously great. Its industries are on so large a scale that one may derive much profit, and even pleasure, in studying them. Great as the production has been, it promises to be still greater; and while the work

of development is continued the city itself is busy grappling with the many difficulties arising from a growth so sudden as its own, and is gradually bringing order out of chaos. Many of the early crudities still remain, but much has been done to better the appearance of a place whose rise was almost as sudden as a thought. The immediate surroundings of the place, however, are unsightly. The hills have Jost their forests and are covered with smoky furnaces, and the outlook is upon a field shorn of whatever beauty it may once have had.

Not so, however, is the scenery through South Park or over the Alpine Pass. There Nature again asserts herself. Mountains are everywhere, — crowded together in the distance and lifting their crowned heads far above where you stand. Except in the South American Andes, the Alpine Pass is the highest railroad point ever attained. It is 11,623 feet above the level of the sea. At one end of the tunnel you are on the Atlantic slope; at the other you are on the Pacific. Two years were spent in boring this narrow passage-way through the mountain. Operations were carried on from both ends, and all tools and the California redwood linings were

brought up the steep slopes over trails that never before had been used except by the wild sheep of the elevated region.

The best views are those just beyond the tunnel, where the train, leaving the gloomy depths, passes out upon a narrow shelf of rock blasted along the perpendicular mountain-side. Timber line is far below; around you lie banks of nevermelting snow. In the far distance are the whitened peaks of the Gunnison country; in the east rise the bluish tops of the mountains overlooking Denver. From your elevated point of lookout the rivers are mere shining threads, and the valleys are but tiny patches of green or brown.

The more one sees of Colorado, and the more intimately its varied attractions are known, the greater becomes his admiration for the Rocky Mountain State. You cannot dull its charm. The air and the light tempt one to those remote fastnesses where stand the grand creations of a master hand. The colorings are beautiful: the rocks red and yellow, the forests green, the grasses brown. Wandering at will through the valleys, you gain a bodily strength that gives you resolution to climb the highest peaks

and take the longest rides. Life, by degrees, becomes ideal: you are newly created.

I shall leave to the local guide-books the more specific instructions as to how one may reach the scenes I have here so lightly touched upon. Those best acquainted with the field will understand how much one must leave unsaid who attempts in a single chapter to tell of all there is to see. At the most, I can but suggest, and must leave to others that minute description which should be given a region so worthy of one's praise. Our few days of idle pleasure have flown like the wind; and now, afar off, are tempting beauties that bid us say adieu to Denver and farewell to the snowy mounds that watch that city of the Western plains.

CHAPTER IV.

IN THE SHADOW OF PIKE'S PEAK.

NEARING the State of Colorado, one might easily imagine that it would be a very simple matter to get directly into the shadow of Pike's Peak, which is seen rising high, white, and solitary above all its fellows. But the mountain that Lieutenant Pike named during his early travels in the then distant West is a landmark as deceptive as it is alluring. Though it appears very near the foothills, which are frequently visited and very accessible, it in reality keeps well away from them, and fortifies itself with a group of mountains, like the giant that it is. Even when one reaches Colorado Springs and gazes at the tall white shoulder, rising above the deep blue and purple hills around it, there are fifteen miles of space intervening, although one would take oath that the peak is not over a mile away. The clearness of the Colorado atmosphere is one cause of the optical delusion,

and the other is in the mountain itself. It is so big and massive, high and white, that it always seems near one, even when a hundred miles away; and the "fifty-niners," toiling slowly across the plains on their way to the new El Dorado, thought every day that on the next they would reach the Peak and make their camp at its base.

So, when the word "shadow" is used, it must be taken with limitations. One may think himself in the shade of the natural beacon, but probably he will not be. Colorado Springs and Manitou are generally said to be in the shadow of Pike's Peak; and I have adopted the local phrase, though the real shadow is several miles away. And yet, if one does not mind a hard ride and a rough camp and a few hardships, he may rest for a day or so in the real shadow, or climb to the top of the Peak itself, and from it look down upon a good portion of Colorado, with its ranges and valleys and vast plains stretching far away, even as do the waters of, a mighty ocean. And if any one will come with me, afoot and horseback, into the mysterious regions of the Rockies, I can promise him many a day of enjoyment and as varied a selection of

MANITOU.



views and experiences as he could get in the Alps or in the Apennines. And we shall never lose sight of Pike's Peak in all our wanderings, nor get far away from its shadow.

Had one looked for Colorado Springs or Manitou in 1871, he would not have found them. The site of both was a desert. Where the one now stands was a rolling prairie, and where the other is were a few sulphur and soda springs, with now and then an Indian camp-fire lighting up a group of swarthy faces. But to-day Colorado Springs is a city of seven thousand people; and Manitou, while not so large, has a resident population of at least five hundred, and a floating population of several thousands. During the summer months the little mountain hamlet is overrun with visitors, and the scenes are as animated as those at Saratoga or Newport. Many visit the place proposing to stay a week, and remain a month; while those who come for a month often stay six, or a year. The attractions of Manitou are, first, its climate, and secondly, its situation. Picturesquely tucked away at the very base of Pike's Peak, it looks eastward, through a gap in the foothills, over a vast stretch of plains, brown and rolling, and dotted with sun-patches as the light is broken by passing clouds.

In order that we may know a little better where we are, stand with me on the summit of Pike's Peak. It has been a long, hard climb, but what of that? We have toiled through dense forests, crawled along the edge of dark ravines, tumbled over lava-strewn fields. But after all the hardships, are we not repaid now, when we look abroad far down upon the country at our feet? Who minds the past exertion? One may complain while climbing a mountain; but when he stands upon the summit, with a clear sky above him, the air intoxicating with its purity, he ceases lamentations, and is mute and enraptured.

For how broad the prospect, and how grandly beautiful! There, toward the east, are the plains, stretching to the horizon, touching the Missouri. Westward are mountains, tossed together in wild confusion. At our feet is Manitou, its houses dwarfed, the stream near by a noiseless thread. Near at hand is Colorado Springs, looking no larger than one's hand, — a toy village, a mere speck upon the plains. We can see Denver, eighty miles away, and Pueblo,

forty, and Leadville, a hundred. Colorado is unmasked. Companion peaks to this of Pike's lift their whitened heads far above the Rocky Range; dense masses of cloud cover some of the neighboring hills, or lie packed in deep gorges. A chill, sharp air blows upon us, while the sunlight scorches our faces. We are nearly fifteen thousand feet above the level of the sea. To the towns below, the distance is seven thousand feet. Every hour the colorings change. We are above the clouds. Nature is wild, but yet harmonious. Bare, sharp ledges reach toward us from the trees below; gaunt, basaltic rocks are piled about us. At our side mighty rivers have their source in tiny springs born of melting snow; in the distance we can see the streams winding through deep and narrow cañons. There is the Ute Pass trail, leading from Manitou up and into the mountains; here other paths, extending to secluded nooks, open invitingly before us. Noticing the shaded fastnesses scattered among the hills, we grow anxious to visit them. They are tempting bits of nature. Many are as wild to-day in their surroundings as when their only visitors were the Indians. Civilization has crept to the base

of the Rocky Mountains in Colorado, but only in places has it found entrance into the heart of the range.

Colorado Springs is seventy-five miles south of Denver. Five miles west of it, nearer the mountains, is Manitou. Strangely enough, the medicinal springs are at Manitou, and Colorado Springs, being a strictly temperance town, is obliged to look to Manitou for even the water which the people drink. The town was founded as a colony in 1871, and has enjoyed an almost uninterrupted prosperity. It has had its seasons of dulness, but as a rule has steadily gained in size and population, and is now one of the popular resorts of the West. Being so easy of access the town is a convenient stopping-place for all transcontinental travellers, and is on the direct road to Salt Lake. Coming down from Denver, one follows the irregular contour of the Rockies, and has at all times a view of their brightly colored monuments of sandstone and of the canons that open upon the plains.

The "Springs," as Colorado's model town is familiarly called, is attractive to look at, and its varied charms render one's life there a prolonged season of rest and pleasure. While not the less enjoyable as a summer residence, it is emphatically a winter resort, and as such is chiefly celebrated. Protected by the mountains from chilly western and northern winds, the weather is rarely cold, and the fall of snow is light. Clear, sunshiny days are the rule and not the exception. For weeks at a time the sky is cloudless and the sunshine bright and warm. The elevation is nearly six thousand feet, and the air, in consequence, is dry and bracing. Many have visited Colorado Springs worn out with the battle against consumption, and have lived for years to enjoy the out-of-door life which the place affords.

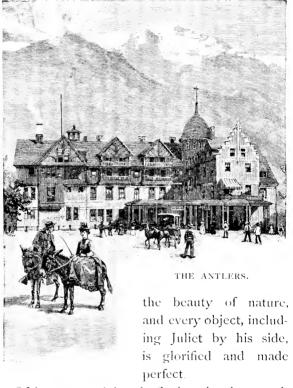
One lives, in fact, in the open air. There are picnics in mid-winter in the secluded cañons near by, and horses are cheap, so that all can afford to ride. The fashion of the day is to dress as one pleases, to ride and walk and lounge. The existence, indeed, is somewhat demoralizing to a well man: he cannot work, seeing so many idle; and if he does, it is by fits and starts. There is much that one may do for amusement. There are the long canters over the plains, brown in winter and brilliant with wild-flowers in the spring; the tramps to Chey-

enne Cañon, a high-walled gorge made noisy by a brightly flowing stream that falls into the cañon from the edge of a high, black ledge; the visits to Manitou, full of life and gayety; the long rides into the Parks nestled among the mountains. Nature is ever enticing, and day by day the town is held in higher regard.

At first there is a feeling that the vastness and dryness of the surrounding country can never be agreeable. The plains seem ever in need of water; the mountains are rocky, and one longs to remould them into hills of living green; the canons have high ledges of red and yellow stone, that one has an itching palm to soften. But soon all desire to change the existing order of things passes away. gazes upon what is and is satisfied. It is useless to attempt an analysis of the cause that forces one to so love these creations of Nature. The prosaic and the brilliant visitor are alike affected: men who before never noticed the coloring of a mountain or a ledge or a rock, begin to observe and speak of it when in Colorado Springs. The hues are heightened in effect by the clearness of the air and the brilliancy of the sky. When the sunlight first touches the

top of Pike's Peak early in the morning, the snow-banks there sparkle like blocks of marble held in granite ledges, and the foothills, bare here and tree-grown there, are bold and hard and rugged.

But after midday, when the sun begins to sink behind the range, all the mountains grow softly outlined. Where the canons are, the shadows are deep and dark; while the rounded shoulders of the hills are a rich, warm blue. Many a weary eye has gazed at the Rocky Mountains from the little town beneath the shadow of the Peak, watching the ever-changing colors there, wondering when the soul, freed from its weary body, would climb the steep slopes and escape, over the mighty wall, into that "other world;" and many a lover, too, riding slowly over the plains toward the towering fronts bathed in the liquid rays of sunset, has felt the magic charm of their beauty, and has wooed the stronger for the heart of the fair one riding silently at his side. The mountains that guard Colorado Springs have much to answer for. They have driven many hearts to fluttering, have opened many a pair of lips that never would have dared to speak. A girl should never believe the story of devotion her Romeo tells in Colorado. His mind is affected by



Of late years Colorado Springs has lost much of its olden ease and primitiveness, and has grown more fashionable. The new houses have too strong a suggestiveness of the Newport villas to be altogether pleasing to those who knew the "Springs" in early days, when a stone house was something unknown. It must be said, however, that they add much to the attractiveness of the place. From the rear balconies of these new abodes the mountains are seen marshalled in full view, and the Peak looms grandly above all its fellows. I doubt if a better or more extended prospect could be desired by any lover of natural scenery; and surely no street is so fortunate as this Cascade Avenue of the "Springs."

Of course the "Springs" has its hotels, and fortunately one of the many is an excellent tavern. Everybody knows the "Antlers." It was built half-a-dozen years ago by private subscription, and has always enjoyed a liberal patronage. Its rear faces the mountains, and north of it are the new houses.

Manitou, neighbor of the "Springs," and its "right bower," — if I may be so disrespectful as to designate the self-conscious little town otherwise than in the stereotyped phrases usually employed, — is very quaint, very far from pic-

turesque in itself, and very original as a Western Saratoga. It clusters at and around a group of highly medicinal springs, which the Indians of Colorado were wont to visit whenever they felt the need of tonics, and has grown from a collection of a few log-cabins to its present respectable size. Leaving the "Springs" by train, one is instantly aware of being conducted to a most remarkable place. The little engine, hauling its train of narrow-gauge cars, fairly hisses with impatience. Even the conductor is concerned, and is alert to impress upon you the importance of what you are soon to see.

As the distance is less than five miles the journey soon ends; and Manitou, the great, stands ready to give you greeting. It lies in a little valley formed by the foothills, and is at the very base of Pike's Peak, whose luminous top may be seen outlined against the blue sky above. Not far beyond the station the hills are so crowded into the valley as to give the impression that none can leave the town in that direction, and eastward are other hills. Altogether, you feel much shut off from the outside world. This, indeed, is what you are expected to feel while at Manitou. One must never dare

think of another place while there; it would mortally offend the people if he did. The town is rather unattractive, as I have mentioned. The houses are planted at random on the hill-sides and on either bank of the stream flowing down the valley; and the hotels are window-studded monstrosities that do not make the slightest attempt at conformity with their surroundings. On our arrival the station platform was covered with hotel porters, excited, of course, and making one deaf with their cries; and near by were open carriages into which we entered, and were driven rapidly up the one main street of the town to the hotel we had chosen. It was all very like Saratoga, or Nice, or Napa, or Santa Barbara; and the number of darkies constantly suggested sleepy St. Augustine or sandy Jacksonville, in Florida.

If the local guide-books may be trusted, one has but to visit Manitou to gain eternal life. The air, one can truly say, is delicious. To many the waters are delicious, too. Not being ill I have always refrained from tasting them. The local belief is that they will cure such slight annoyances as blood-poisoning, rheumatism, diabetes, and derangements of the liver. I have no

doubt they will, if indeed there is efficacy in any natural waters. Famous chemists have tested



A SPRING HOUSE.

these at Manitou, and, for a consideration, have pronounced them equal to any of the European

springs. Visitors gather at the fountains and copionsly imbibe, evidently sure that quantity, if not quality, will gain for them the desired relief. The fact that the Utes were believers in the Manitou waters is to me their strongest recommendation. An Indian is not easily imposed upon, and the public is. Not that I think the public has been imposed upon at Manitou. Too many cures have been effected to leave much doubt regarding the curative properties of the springs. They are wonderful; and, better yet, they are abundant. And Manitou, having them, is doubly blessed; for with them she has her climate and her surroundings, which, once enjoying, one never forgets.

To recall Manitou and not the "Garden of the Gods" is impossible. The two are inseparably connected in one's thoughts. "H. H.," whose home was once at Colorado Springs, and whose grave is on Cheyenne Mountain, called the Garden a "symphony in yellow and red." The place is a fantastic creation. It lies between the Springs and Manitou, and is a hill-guarded retreat crowded with strangely fashioned rocks of red, gray, and yellow sandstone. The gateway to the Garden is formed by two sharp-

edged ledges rising abruptly from the ground and approaching each other like the prows of gigantic ships. They are of bright-red sandstone, much worn by time and weather. Between them runs the roadway. One of the cliffs is three hundred feet high, and the other slightly more than this.

A short distance from the gateway, looking through which one sees into the Garden and beyond it to Pike's Peak, is another ledge rising like a slab of stone from the ground, whose color is a brilliant yellow. The contrast between the red and yellow is odd and striking, yet prepares one in a measure for the scenes beyond. Passing the gate one is in the Garden. Westward, at the end of a circular enclosure sloping gradually into the valley leading to Manitou, are the mountains, blue now in the. distance and guarded by Pike's Peak, while all around are red and vellow masses of rock, scattered about in wild confusion and carved by Nature into strange, weird shapes. Here a pillar of red sandstone strongly resembles a headless giant; here a yellow pinnacle bears the likeness of a man with his hat set jauntily on one side, and his nose of huge proportions. There are

pulpits and castles, domes and animals, while the colorings are as varied as the figures. By moonlight the place is doubly weird, and yet is strangely fascinating. In the uncertain light of night every object is softened; but yet the figures are more real, and one seems lingering in a garden filled with departed heroes of gigantic frame.

The popular recreation at Manitou is riding. Many ride who evidently never rode before. It is not a question where one shall go; it is rather how he shall find time to see all there is to see. There are the passes leading into the range and through the forests; Glen Eyrie, the romantic nook where General Palmer has built his castlelike house; Crystal Park, set in a verdant ravine among the foothills; and Ute Pass, the old-time path by which the Indians came down to the valley from their mountain home. In early spring the air of the Pass is heavy with the perfume of myriads of wild-flowers, while at all times the pines send forth a delightful fragrance. The trail to Crystal Park is steeper than the Pass, and is not wide enough for carriages. In places, indeed, there is barely width enough for a single horse to pick his way. Climbing higher every minute, the way at last leads out of the forests to where patches of snow lie among ledges of rock, and past the brink of deep valleys, far down in the bottom of which rush angry streams. And when the Park is reached at last, one finds cool shade, and there is an extended prospect of the plains.

But did I not say so? Here we have been wandering about the base of Pike's Peak, seemingly ever near the great white cone, and still not once within its shadow. And are we never to get there? Well, possibly. We can, if we wish; but the way is long, the path is rough. But if hardship is not feared, let us go. Riding out of Manitou past the Iron Spring, our course leads at once into the midst of a thick forest. The path we follow winds in serpentine course among the tall trees and by the side of mountain streams. Onward we go, and ever upward, and at last are out of the forests and picking our way over a barren waste, above which rises the Peak. Now we are in the shadow of the monarch; now we can see how deep the gorges are that run down from the summit, and how deep the snows are that glitter so brightly in the strong sunlight. How alone we are! From where we stand the silence is unbroken save by the whistling of the sharp winds as they howl



ON THE ROAD TO PIKE'S PEAK.

about us. In ages past some terrible earthquake has heaved the rocks into the confusion now

existing. There could not be greater disorder. The granite bowlders are tossed into every conceivable position, while here and there are deep gulfs into which we dare not look. As we move along toward the summit of the Peak the sun scorches our faces, but the wind is cold and biting. The progress is slow and tedious; but our ponies are well trained and careful, knowing as well as we do where a misstep would send them.

But at last, crossing the lava-strewn hills gathered around Pike's Peak, we cross the snow region and gain the summit. We have been in the shadow, and now have escaped from it and look down upon it. From where we stand we can see the black shadow of the Peak creeping slowly but surely over the surrounding foothills, over the forests, over the bare rough ledges. But before it reaches Manitou down there in its narrow valley, the night has come upon us, the air grows cold even in mid-August, the stars shine like diamonds in the clear heavens, and the shadow of Pike's Peak is seen no more.

CHAPTER V.

THROUGH THE HEART OF COLORADO.

It is literally through the heart of Colorado that one is led who patronizes the Rio Grande Road between Denver and Salt Lake City. The line is a most remarkable one, in many respects, and in its early days was surprisingly active and ambitious. When Leadville was discovered and became the objective point of Colorado Roads, it waged a fierce war with the Atchison for the right to run through the Grand Cañon of the Arkansas, and gained its end. Then, in after-years, it rapidly formed a net-work of lines over the most promising sections of the State, and at last pushed westward across the mountains to the valleys of Utah.

To-day the Rio Grande is one of the great transcontinental routes, and because of its attractive scenery is in great favor among all travellers in the middle West. What one may see in going from Denver or Colorado Springs to Salt Lake City would take a volume to describe. On no other road in the country is there to be found so much of scenic interest. The road cuts its way through deep, gloomy canons, climbs high mountains, winds through narrow valleys, reaches seemingly impossible heights, and in the end follows the peaceful Jordan River to the city of Mormon faith.

From Colorado Springs the course of the Rio Grande is due south along the face of the Rockies, to Pueblo, a busy city of recent growth and more important as a commercial centre than it is attractive to the eye. From here the line is westward, and keeping within sight of the Arkansas River plunges at last into the Grand Cañon, through which the turbulent mountain stream cuts its way. You cannot well describe this Royal Gorge, as the canon is called in the guide-books of the road; for in reality it is indescribable. You may not appreciate its grandeur, its awful sublimity, at first. Very likely you will not. Acquaintance renders it more and more impressive; at first it does not seem so remarkable as it really is.

As a fact, however, the narrow, twisting defile, hemmed in by abruptly rising cliffs of solid,

dark-colored rock, is the deepest and naturally most impassable cañon which any railway in the world has ever attempted to penetrate. It varies from one thousand to two thousand five hundred feet in depth, and even now, after many obstructions have been removed, has barely width enough for the passage of the river and train. Formerly it was absolutely impassable except one, at times, took to the river. But when it was decided that Leadville must be reached man set about the work of widening the narrow places and removing the obstructing ledges. Daring workmen lowered themselves into the pass from the cliffs above, placed their explosives, and then, with scarcely time to get away, waited for the moment to come when the rocks would be shattered. The road through the gorge was built, and when finished was the marvel of the age, and the admiration of engineers; for it extends into the very depths. Its pathway is often sunless, forever wrapped in gloom. The cliffs shut out the light of day, and the loud rumble of the river, lashed into foam, fills the place and echoes from wall to wall. The gorge is like an entrance to some infernal region, - full of Rembrandt shadows, treeless,

harsh, and wild. High above you see the deepblue Colorado sky; at your side is the river; on either hand the cliffs, high, unbroken, the summits capped with pinnacles, the lower walls smooth and bathed with the gleaming dampness of hidden springs.

For an hour or more the road runs through this strange, weird chasm, this uncanny channel deep-set among the hills of the Rocky Mountains. Then, leaving the place as suddenly as it was entered, a wider valley is reached. You are well up among the mountains, and after your détour southward are nearly due west of Denver and well on the way to Salt Lake. In the distance are passing visions of mountains; some snow-capped, others with brown slopes and forest-crowned tops. Valleys are everywhere, and of varying width and length. Following one there are glimpses of others. In some are cattle, feeding; in others flat-roofed cabins or diminutive settlements. The air is delicious, cooled as it is by the snow on the mountains and rarefied by the elevation you have attained.

At Salida, not far beyond the Grand Cañon, the Rio Grande branches, one line extending to Leadville and the other passing westward beyond Poncho Springs toward Marshall Pass, — still another of those scenic features which give the road its well-deserved reputation. As you advance, the busy puffing of the two engines tells the story of the high grades they are working to overcome. The path is narrow, the surrounding mountains are high, and at last, defying, so you say, all further progress, rises a vast mound which is eleven thousand feet high.

Now for hours comes the tug of war. The road lies in coils on the mountain-side, track above track, and the grade so steep that the nervous are afraid. Half-way to the top the prospect broadens. Far away, their peaks extending southward to the San Luis Valley, are the Sangre de Christo Mountains, their whiteness outlined in bold relief against the background of wooded hills. Then follow other curves and still steeper grades, and at last the summit is reached. You are on a water-shed of the country. On the one hand is the Atlantic, on the other the Pacific slope. Patches of winter snow lie in the crevices among the dark, basaltic rocks; the trees are bent by fierce winds; the height is as weird and uncanny as that of the Brocken.

West of Marshall Pass is the Gunnison country. Looking down upon it you can count its hills and valleys, and can trace the course of Tomichi Creek, which, born at your side, flows down the mountain-side through the forests and thence into and along the valley that, later on, you yourself pursue on your fascinating journey. It is very extended, this prospect which Marshall Pass commands. Von are above the world of man; below you are mountain-tops and dense The view is very beautiful, all fair and forests. natural No towns are to be seen. The forests are green on the hill-sides and in the valleys.

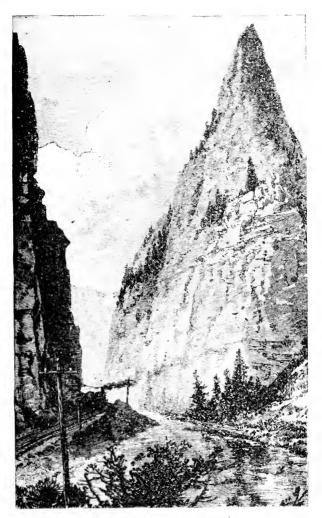
Gunnison City, the metropolis of the county whose name it bears, stands in the centre of a vast circular basin surrounded by hills, which in turn are guarded by mountains. To the north of the city is Crested Butte, famous for its coal deposits; and beyond it are the mining districts of Ruby and Irwin. If you have time, give a week or more to the several camps of these districts. You will be well repaid. There is a railroad to Crested Butte, but beyond there you travel by stage or on horseback, the roads leading over the mountains to a region full of interest. If of a practical nature, you will study the

mines and the work of mining. If not practical, — if a sportsman or a naturalist, — you will find infinite amusement, unlimited opportunities for enjoying quiet forests and fast-flowing streams and views of mountains piled together in indescribable confusion. Does a ride of ten miles tire you now? Is your vitality exhausted? If so, remain a month in the Ruby or Irwin districts, and you will not know you ever were so. The air is a tonic; the scenery an inspiration. You can fish and hunt and live out of doors to your heart's content. Nothing is conventional; all is novel.

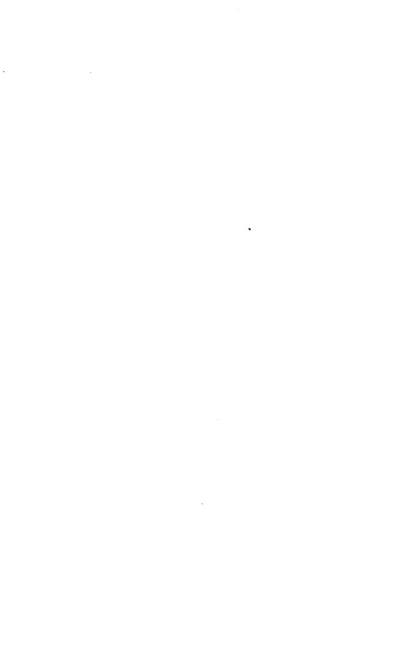
Beyond Gunnison the railway traverses the valley of the same name, closely following the Gunnison River and encountering nothing but meadows and low, grayish cliffs. Soon, however, the channel of the river becomes narrower. The cliffs are higher and steeper, the vegetation is less abundant, and suddenly the sunlight is cut off by broken summits, and the Black Cañon of the Gunnison holds one in its grim embrace. It is grander and often deeper than the Royal Gorge. It is thrice as long, but has more verdure; and although the walls are dark-hued enough to give the place its name, still they are

of red sandstone in many places, and from their crevices and on their tops shrubs, cedars, and piñons grow in rich abundance. The river has a deep sea-green color, and is followed to Cimarron Creek, up which the road continues, still through rocky depths, to open country beyond.

The Black Cañon never tires, never becomes commonplace. Here a waterfall starts from a dizzy height, is dashed into fragments by lower terraces, and, tossed by the winds, reaches the river in fine white spray; there another cataract leaps clear of the walls, and thunders unbroken upon the ground beside us. In the cliffs are smaller streams, which trickle down and are lost in the river below. At times the cañon narrows. and is full of sharp curves, but again has long, wide stretches, which enable one to study the steep crags that tower heavenward two or three Currecanti Needle, the most thousand feet. abrupt and isolated of these pinnacles, has all the grace and symmetry of a Cleopatra obelisk. It is red-hued from point to base, and stands like a grim sentinel, watchful of the cañon's solitudes. At the junction of the Gunnison and the Cimarron a bridge spans the gorge, from which



CURRECANTI NEEDLE, BLACK CAÑON.



the beauties of the canon are seen at their best. Sombre shades prevail; the streams fill the space with heavy roars, and the sunlight falls upon the topmost pines, but never reaches down the darkred walls. Huge bowlders lie scattered about; fitful winds sweep down the deep clefts; Nature has created everything on a grand scale; detail is supplanted by magnificence, and the place appeals to one's deepest feelings. Long ago the Indians of the region built their council fires here. By secret paths, always guarded, they gained these fastnesses, and held their grave and sober meetings. The firelight danced across their swarthy faces to the cliffs encircling them. The red glow lit the massive walls, the surging streams, and clinging vines. The Indians may not have known the place had beauties, but they realized its isolation; and fearing nothing in its safe retreat, spoke boldly of their plans.

Emerging from the Black Cañon, the railway climbs Cedar Divide. From here the Uncompangre Valley, its river, and the distant, picturesque peaks of the San Juan are within full sight of the traveller. Descending to the valley, and following the river past Montrose, the Gunnison is again encountered at Delta. Thence

traversing the rich farming land of the Ute reservation, the road passes through the lower Gunnison Cañon, with its varied and attractive scenery, to Grand Junction, where it enters Grand River Valley. The space of over one hundred miles intervening between the Grand and Green Rivers resembles a billowy desert; and while the most uninteresting part of the route, is far from dreary or monotonous. Close by on the north are the richly colored Book Cliffs, while away to the southward the snowy groups of the Sierra la Sal and San Rafael glisten in the distance. Between them may be distinguished the broken walls which mark the Grand Cañon of the Colorado, scarcely fifty miles away.

The belt of country lying between the meridian of Denver and the Pacific, and between the thirty-fourth and forty-third parallels, has been divided by Major Powell into geologic provinces, each distinguished by characteristic features. The easternmost he calls the Park Province. It lies in Central and Western Colorado, and extends north to Wyoming and south to New Mexico. The next province westward is the Plateau, occupying a narrow strip of Western

Colorado, a similar strip of Western New Mexico, a large part of Southern Wyoming, and rather more than half of Utah and Arizona. Still west of the Plateau Province is the Great Basin, covering Western Utah, the whole of Nevada, and a small portion of Oregon and Idaho. The Grand Cañon district is a part of the Plateau Province. Nearly four fifths of its area of thirteen thousand square miles is in Northern Arizona. The other fifth is in Southern Utah; and it is this remaining portion which lies within sight of the point at which the Rio Grande Road crosses Green River and turns toward the mountains overlooking the Great Basin.

It is difficult to form the slightest conception of the general features of the Plateau Province. The region is one of tables and terraces, of buttes and mesas, of cliffs and cañons. In its coloring all gentler tints are lost, and in their place are belts of brilliant yellow, red, and white, intensified by alternating belts of gray. The brilliantly colored cliffs stretch in tortuous course across the land in all directions, and the cañons form a labyrinth of interlacing gorges from five hundred to six thousand feet deep, which lead down to the chasm of the Colorado and to the

cañon of its principal fork, the Green River. Standing upon any elevated spot where the radius of vision reaches out fifty or a hundred miles, one beholds a strange spectacle. The sculpture of the cañon walls and of the cliffs is very wonderful. There is an architectural style about it which must be seen to be appreciated. The resemblances to architecture are real and vivid, and cause one to question whether the creations can be those of the blind forces of Nature. Even the most experienced explorers are filled with amazement by the apparition of forms as definite and eloquent as those of art.

The dividing barrier of the Plateau Province is the Uinta Range, which trends east and west and projects from the eastern flank of the Wasatch Mountains to the Park Ranges of Colorado,—a distance of one hundred and fifty miles. At its southern base is the arid desert which the Rio Grande traverses, and across which Green River flows. That portion of the province lying north of the Uinta Mountains is a celebrated field for the study of the Cretaceous strata and the Tertiary lacustrine beds, but otherwise is unattractive. The country to the southward, however, has the sublimest scenery on the continent.

Its surrounding ranges are from nine thousand to twelve thousand feet high, and the altitude of the region itself varies from five thousand to seven thousand feet. From Green River crossing you can faintly see the outlines of the cliffs and buttes that rise above the canons which the Colorado and its tributaries have worn through the very heart of the old ocean bed. Were we to follow the river, winding lazily past, it would lead us to the flaming gorges and lose us in the channels that are so weird and yet so beautiful. Geologists who have traced the course of many of the cañons, and who have entered that of the Colorado, longest and grandest of all, have a strange story to tell. To them the Plateau is an open book, the cliffs being the pages on which is written the history of the region. his report on the Canon district Captain C. E. Dutton gives an exhaustive description of its geologic features and history. From the beginning of the Carboniferous period to the close of the Cretaceous, the province accumulated nearly fifteen thousand feet of strata. At the close of the latter period important changes occurred. The marine area of former days became a lacustrine one, and for a time Eocene lacustrine strata

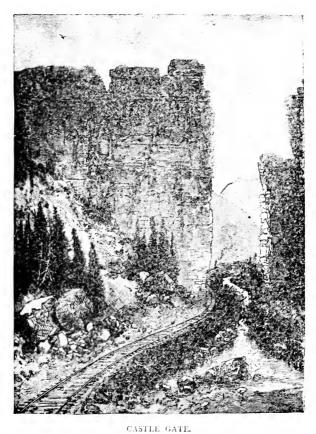
were deposited over a greater part of the surface. Then new displacements began by faulting, flexing, and upheaving, draining the lacustrine area and forming a river system, the configuration of which was determined by the form of the emerging surface. The new-made land was attacked by the atmospheric agencies of degradation. The present Grand Cañon of the Colorado dates its origin from the close of the Miocene period. Prior to that time the river was engaged in cutting through eight thousand to ten thousand feet of strata. The excavation of the present chasm is the work of the Pliocene and Quaternary periods.

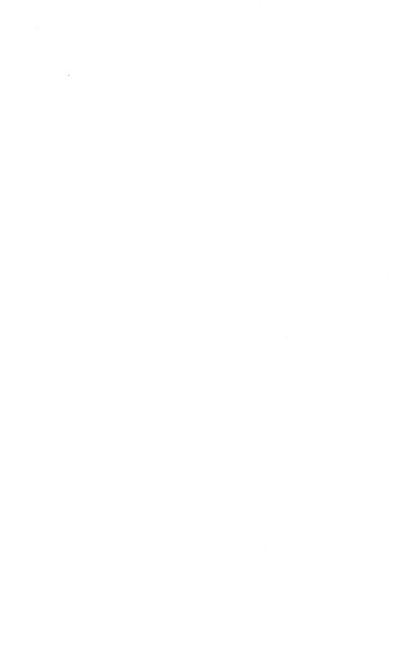
All who have seen the Grand Cañon itself pronounce it the most sublime of earthly spectacles. It is more than two hundred miles long, five thousand to six thousand feet deep, and from five to twelve miles wide. To the conception of its vast proportions one must add some notion of its intricate plan, the nobility of its architecture, its colossal buttes, its wealth of ornamentation, and the splendor of its colors. It is not a mere cañon, as the word is commonly understood; not simply a dark, deep gash in the earth, with nearly vertical walls. It is vastly

more than this; more complex, more beautiful, and filled with exquisite colors. Underneath the pale-gray summits of the measureless walls are pale-pink cross beds of sandstone; and below these are belts of brilliant red a thousand feet deep, and projecting ledges of brown and vermilion and purple. The hues deepen or grow faint with every passing hour of the day, while at sunset the splendors are more than earthly. The canon grows in beauty, power, and dimensions. The grand becomes majestic. the majestic sublime. The expanse within is a deep, luminous red, and the clouds above shine with orange and crimson. Then, gradually, the shades deepen and ascend, hiding the sculptured walls, and leaving their tops floating on a sea of blackness

The Colorado flows with great rapidity through its cañon, the average fall being 7.56 feet to the mile. In one of the divisions into which the gorge is subdivided, it is 12.07 feet to the mile. The water is rarely clear, but is filled with a sandy sediment that greatly increases the corrading strength of the on-rushing streams. There are few points where the river level can be reached. As a rule you are high above it, the

cliffs rising overhead and descending far beneath the mid-way shelf on which you stand. As for these colored walls, which so shut in the Colorado, who shall attempt a description of their towers and domes and colonnades? Some are almost without a break from top to base; others contain a succession of shelves, each supporting some quaint ornamentation of brilliant color. In one instance is a row of towers, more than three thousand feet high, quarried out of the palisade and well advanced from its face; in another is a domelike mass, white as chalk and streaked with ribbons of carmine. Temples and cathedrals are everywhere, flashing their rich tints upon the region above which they rise, and their bases extending into the depths where the river runs. Wherever he goes one will see the same beautiful creations; and to relieve the general features of any possible monotony he will here and there, far down in the levels of the cañons, find narrow patches of bright-green verdure, fringed with brown banks of talus thrown down from the cliffs above. In all the West there is no district so well worth one's study as that of the Colorado Cañon; and the geological reports about it are fascinating reading.





Beyond Green River and Castle Valley commences the steep ascent of the Wasatch Mountains, and the beautiful in nature again appears, the first effect being Castle Gate, guarding the entrance to Price River Cañon, through which the railway runs. Castle Gate is similar in many respects to the gateway to the Garden of the Gods. The two huge pillars, or ledges of rock composing it, are offshoots of the cliffs behind. They are of different heights, one measuring five hundred, and the other four hundred and fifty feet, from top to base. They are richly dyed with red; and the firs and pines growing about them, but reaching only to their lower strata, render this coloring more noticeable and beautiful. Between the two sharp promontories, separated only by a narrow space, the river and the railway both run, one pressing closely against the other. The stream leaps over a rocky bed, and its banks are lined with tangled brush. Once past the gate, and looking back, the bold headlands forming it have a new and more attractive beauty. They are higher and more massive, it seems, than when we were in their shadow. Church-like caps hang far over the perpendicular faces. No other pinnacles approach them in size or majesty. They are landmarks up and down the cañon, their lofty tops catching the eye before their bases are discovered.

It was down Price River Cañon, and through Castle Gate, that Sydney Johnson marched his army home from Utah. For miles now, and until the mountains are crossed, the route chosen by the General is closely followed. The gateway is hardly lost to view by a turn in the cañon before we are scaling wooded heights. The river is never lost sight of. The cliffs which hem us in are filled with curious forms. Now there is seen a mighty castle, with moats and towers, loopholes and wall; now a gigantic head appears. At times side cañons, smaller than the one we are in, lead to verdant heights beyond, where game of every variety abounds.

From Castle Gate to the Utah Valley, the Railway winds among the mountains of the Wasatch Range. From the summit down to lower levels again, the route is through cañons illumined with vari-colored pinnacles of rock. Then, almost without warning, the mountains are left behind. Before you stretch the great central valleys of Utah. In the far distance is the

Salt Lake; and at its side is the Mormon city. The road passes through Utah Valley, oblong in shape, lighted by its lake, and rendered fair to look upon by its continuous meadows and orchard-surrounded towns. Eastward the basin is shut in by the Wasatch Mountains; and on the west is the Oquirrh Range. Northward are low hills, or mesas, crossing the valley and separating it from that of the Great Salt Lake; while in the south the east and west ranges approach each other and form blue-tinted walls of uneven shape. To the left of this barrier Mount Nebo, highest and grandest of the Utah peaks, rises majestically above all surroundings. Its summit sparkles with snow; its lower slopes are wooded and soft, while from it, and extending north and south, run vast, broken, varicolored heights. The valley is like a well-kept garden, and you leave it with regret.

The Rio Grande road advertises itself as the "Scenic Line." Those who have followed me in the brief, spasmodic glances at its attractions will grant the title, I think. As you pass out of Utah Valley and enter that of the river Jordan, extending northward toward Salt Lake City, one's thoughts are of the past, conjuring up the

pictures of the strange gorges through which you have passed, and the heights you have climbed. The reality, so wonderful, seems almost an unreality; and in the enthusiasm of the hour you are ready to acknowledge the little narrow gauge Road to be anything and everything which its owners claim.

CHAPTER VI.

GLIMPSES OF UTAH.

TAH is the great middle West Territory. Isolated for years, and only lately beginning to receive the attention so richly deserved, it was long considered an utterly worthless portion of our country, and was left severely alone. When the Mormon emigrants, led by Brigham Young, looked upon the valley of the river Jordan, now teeming with life and cultivation, they saw only a region which had never felt the plough or the spade, but which still appeared to the little band of outcasts the very spot where for them there were rest and peace and safety. Sick and footsore from their long tramp across the trackless wastes of the wide West, they hailed the central valley of Utah, which they have since so beautified and adorned, as a modern paradise; and rushing down from Emigration Cañon, as the gorge by which they entered

Utah is called, they began to crect cottages and to cultivate the fields which have become famous to-day for their fruitfulness and attractiveness.

Had a Mormon been told when he first came to Utah that he ever would be disturbed in his new possession; had it been imagined even that railways would ever be built into Utah, or that the Gentiles from the East would seek the mountain-guarded valleys of the Territory, — it may be doubted if the disciples of the Latter Day Saints' Church would have been willing, or would have dared, to do for Utah and with it what they have. But the future had no terrors. Even Brigham Young, ablest of his people, then and for many years believed that the newly acquired country to which he and his followers had been led was safe from invasion by enemies of the Church, and would never see a Gentile. Infusing this belief into subjects ever ready to follow his advice, Young urged the settlement and cultivation of the valley, and lived to see it blossom and bear fruit, and his city to attain proportions that called forth the highest encomiums of the world.

Long before Utah was generally visited, Salt Lake City was a thriving metropolis, a city of

large and handsome buildings, wide streets, public halls, and energetic inhabitants. Indeed, it was the city which attracted visitors to Utah. Its fame became international; and as for the valley, at the head of which the city is located, it was likened to a modern Arcadia, and was sung of by poets and praised by all. Every one wanted to see the wonderful region which had been a desert, but had become a garden; and little by little foreigners to the Church came over the high mountains and overran the Mormon land. During the past years especially, the invaders have rapidly increased in numbers; and to-day Utah, with its verdant valleys and sunny basins, its snow-capped peaks and cultivated fields, has railways and mills and Gentiles, and the old-time authority of the Mormon Church is menaced on every hand. The isolation of the Territory is a thing of the past. The deserts have proved of no avail. The new era has come. Capital from Gentile pockets has opened the mines, laid rails throughout the valleys, become a power whose future mastery is inevitable. The country is still a Mormon stronghold; but the outer walls of the Mormon castle are down, and over the ruins storms that

restless army of men whose aim is wealth, and whom no obstacles deter or frighten.

Utah, by which is generally meant that portion of it lying around and to the south of Salt Lake City, is at its best rather early in the season, in May and June, or late, in September and October. In May the snow has left the valley, which lies between two parallel ranges with whitened tops, and the trees are green. Then the fields are ploughed and the sunshine is warm in the sheltered region. The season is like a New England spring-time, soft, dreamy, and half-awake, and odorous with the perfume of budding leaves.

Later in the season, when the crops are gathered, the fruits picked, and the broad fields, watered by the river Jordan, lie yellow in the clear bright air, the shrubs on the mountainsides are a wilderness of color. Then the days are sharp and crisp, and distant summits lose their August haziness and stand like sentinels guarding the flowery land. Fresh from the dreary plains surrounding Utah, one feels on reaching the Jordan Valley that he has found a veritable garden. Even the half-finished appearance, so characteristic of other Western



scenes and towns, is conspicuous by its absence. The Mormons, whatever else they may have omitted doing or becoming, have good taste and are busy workers. Their cottages are neat and trim, and are enshrined in the midst of trailing vines and blossoming flowers; their roads are wide and smooth; and their fields are carefully cultivated and extend throughout the length and width of the valley.

Salt Lake City is a curious town, quaint in its architecture, and in its general appearance having a strange commingling of the beautiful and commonplace. It is divided into large square blocks of ground, some occupied by large stores, and others by pretentious houses of yellow brick or wood, with gardens all around them. The one main street of the city, which has a width and length apparently out of all proportion to the business requirements of the place, runs nearly due north and south from the mountain back of the city toward the valley beyond. Facing this are the largest shops of the town, including the co-operative establishment belonging to the Mormon Church, and the high adobe walls behind which are the Temple, Tabernacle, Tithing-yard, and residence of the Mormon president. Branching east and west from this thoroughfare, down the sides of which run two streams of clear water, acting as scavengers of the city, are the less important streets, containing the smaller stores and residences.

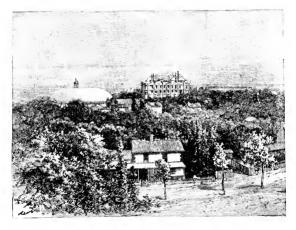
Were it not for the fact of there being such variety in the architecture of the several dwellings, Salt Lake might appear angular and prosaic. But hardly two houses are alike, and the gardens separating them give one the impression, at times, that he is sojourning in a New England village, where, as here, there are green trees hanging over picket fences, and cool, fresh lawns, with gravelled walks leading through them to spacious porches. There is an air of solid comfort about these Utah houses which invites one's good opinion and entices him to linger. They are large and light and cheerful, and one looks in vain for evidences of that Mormon family redundancy which so many suppose is glaringly present in a city founded and ruled by disciples of polygamy. So far as there is external indication, the homes one sees at Salt Lake City might be those of well-to-do people in the East, who had gained a competency and

who now proposed enjoying their remaining days in peace and comfort.

Brigham Young was a good deal of an autocrat in his day, and loved ease and comfort and luxury better, possibly, than he did his numerous wives. His old home, now occupied by his successor, stands at the right of the Tithingyard, and enjoys the suggestive name of the Bee Hive. Well for the peace of mind of the departed Brigham if there were not times when his many helpmates rendered the abode worthy the name of Hornet's Nest. Either the former president was an amiable man of most pronounced type, or he was a stern disciplinarian. Otherwise, with so many wives, his life could hardly have been a joyous one.

Looking to-day at the home he occupied, with its large porch in front, its three stories, its dormer windows, suggestive of many rooms, one tries to imagine what his life at home was like, and what his power was. But there the "palace" stands, with its windows all intact; and Brigham sleeps hard by, at rest at last, whether he ever was in life or not. The mansion is a comfortable old place, wide and spacious, and sedate in its appearance; and by it stands the

smaller house where the former ruler had his office, and from which he directed the affairs of this people. The passing years have brought but little change to the places. Time has chipped the yellow bricks here and there, and mellowed the door-posts; but the outer wall sur-



THE TEMPLE AND TABERNACLE, SALT LAKE.

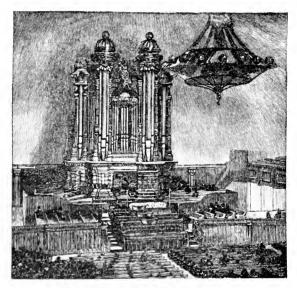
rounding the buildings is still high and strong, and the office looks as it did when the ablest man the Mormons will ever see sat in his armchair and ruled like a king of the realm.

The enclosure containing the Temple and

Tabernacle is the pride of every Mormon, and the Mecca of all strangers. Entering it through a wide gateway opening upon the main street, one stands at once before the unfinished walls of the new Temple, which even now afford a realistic suggestion of what the structure is to be like when the work is finished. Millions have already been expended on the Temple, and it has been in process of construction ever since 1868, and will require a dozen years of labor yet before the work is done. Made with solid blocks of native granite, quarried in the cañons of the Wasatch Range, the walls are fifteen feet in thickness, and the building is massive in every particular. It is designed to contain the several offices of the Church, and the polygamous marriages will be celebrated there. Its architecture is purely Gothic, and its outlines are full of grace and strength. The money for its erection was raised by the imposition of certain taxes, and the structure will cost, when finished, nearly \$6,000,000. It will be made entirely of granite and brick, to the utter exclusion of wood-work of any description.

Just behind the new Temple is the Tabernacle, its huge rounded roof resting on circular walls

of brick enclosing the spacious interior. From a distance the structure resembles an upturned boat, and a nearer acquaintance fails to disclose any remarkable beauty in the far-famed church. It has a seating capacity on the floor



PULPITS AND ORGAN.

of the house of twelve thousand, and four thousand people can be accommodated in the gallery, which extends around three sides of the hall, and is supported by seventy-two pillars. The length of the building is two hundred and fifty feet, and its width is one hundred and fifty. There are twenty doors opening at once into outer air, and the interior can be cleared of people in five minutes. In the centre of the auditorium stands a stone fountain, at which baptisms take place. In front of this is the great organ, and before it are the pulpits and president's desk, and seats for the choir singers.

Opposite the Tabernacle stands a solemnlooking building of Gothic design, in which services are held during the winter months when the larger house is too cold to be available. It is not so commodious as the Tabernacle, but has a seating capacity of some eight thousand, and is in most respects a finer structure than its neighbor across the way. It is built of stone, and graced at its outer corners by four small towers. The interior is elaborately frescoed in pictures illustrative of the new religion of which Joseph Smith is the founder and patron saint. There is an ideal representation of Maroni showing Joseph where the tablets were hid in the hill of Cumorah; a view of the pioneers entering the valley in 1847; and an inscription announcing

the fact that the "Church of Jesus Christ of Latter Day Saints" was organized in 1836.

The Endowment House, where polygamous marriages were performed, stands in the north-west angle of the Temple enclosure. Admittance to the place is never given a Gentile, and one is left to stand outside and imagine what there is within. A heavy penalty is attached to whoever discloses the secrets of the Endowment House, and it is questionable how much reliance may be placed in the stories which from time to time have been given the believing public.

Taken as a whole, Salt Lake City is prepossessing. Famed for its almost universal cleanliness, it has also a commanding situation, well-arranged streets, large public and private buildings, and attractive, even beautiful, surroundings. Directly behind the city, overlooking it and the valley, is Ensign Peak. From its top one has the best of Utah at his feet. From below comes the murmuring sigh of busy life. There to the right is the lake, motionless and cold; there are the mountains faintly outlined in the distance, but nearer showing their rough sides and gaping cañons. Flowing down the valley is the Jordan, sweeping past farm and

village; to the left is Camp Douglas, with its cannon-guarded plaza, its cottages, and its waving flag. The coloring, if the season is favorable, is exquisite, — dark-blue on the distant hills, green in the valley, brown on the foothills, rich with golden hues where the frosts of early fall have touched the maples and the quaking asps. One looks from garden to wilderness, upon fresh streams and upon a salty inland sea. There is picturesqueness here and grandeur there; softly outlined peaks of blue, and granite ledges bare of trees; while near by is the city, perched on its quick-sloping bench of land, and commanding the varied prospect.

The most important suburban attraction of Salt Lake is that famous inland sea lying to the west of the city, and to which the Union Pacific Railroad has extended a branch line. Garfield, the terminus of the road, is to Salt Lake what Coney Island is to New York. During the long summer season the place is the resort of thousands who flock there to enjoy the delicious coolness, and to bathe in the lake. A monster pavilion, with bath-rooms, café, spacious balconies, and a long promenade extending two hundred and seventy feet from the shore, has lately

been completed. At the end of the promenade is a smaller pavilion for the accommodation of dancing parties. With its extended view of the placid lake and valley, Garfield is an ideal resort. Tired with sight-seeing and travel, one finds there a perfect rest. Sitting on the balcony at sundown, a new insight is had into the beauties of Utah. The lake, usually so colorless, is crimsoned by the setting sun, and in the far distance westward the mountains become heaps of purple, clearly outlined against the brilliant sky. Every color is intensified, and only the tiny waves rolling in upon the whitened sands disturb the restful quiet.

At the height of the season the pavilion is crowded. An orchestra plays on the balcony, and one may dine as he watches the daylight fade away and the moonlit evening steal over the enchanting picture. Those so desiring may live at Garfield while making the acquaintance of Salt Lake. Frequent trains are run between it and the city, and the hotel accommodations are excellent.

Few who notice the general dryness of the Utah climate, or who regard the lake as an insignificant body of water, shallow, salt, and list-

less, will at once be able to appreciate the fact that at one time, and more than once indeed, the present lake had a depth of over a thousand feet, and covered the lowlands which to-day have their towns, railroads, farms, and people. Lake Bonneville, as the geologists call this vast inland sea of long ago, had an area as great as that of Lake Huron to-day. At first the waters were shallow as those of Salt Lake are now. Then they gradually rose and spread, flooding the region and forming high upon the mountain sides those clearly marked "shore lines," which one can still trace and by which the eventful history of Bonneville is unfolded. Later, the waters receded, and the lake not only dwindled in size but utterly disappeared, leaving a plain even more desolate than the Great Salt Lake Desert of to-day. Then again came the flood, the lake rising even above its former height and eventually overflowing the basin at its northern edge and sending a tributary stream to the Columbia River. Following this flood came a second recession, and the water diminished in volume until nothing remained but the present salty lake. There were volcanic movements during the periods of the great flood, and the

high mounds that now stand in the midst of arid plains were created beneath the surface of the lake. The history of the epoch, as told by geologists, is replete with interest; and the facts deducted from the careful studies now being made, lead one to question how long the present era will last, and when there will come another period of humidity during which Great Salt Lake will again caress the mountains and hide all evidence of the present civilization beneath its wind-swept waters.

In a paper published with the report of the Director of the United States Geological Survey, Mr. G. K. Gilbert gives a full description of the so-called "shore lines," by which is measured the height that the waters of Lake Bonneville reached, and analyzes the causes which produced the overflow and the manner in which the present information was gained. The story has been learned from the shore line upon the mountain sides, from the waters of the present lake, from the alluvial, clay, and marl deposits at the base of the cliffs, and from the arid deserts and volcanic creations. The very stones have been made to speak; and the deductions are so logical that Bonneville seems of the pres-

ent rather than of the past, and is easily thought of as still bathing the heights which are far above the lake at whose side we stand. The structural formation of the earth's surface was never interrupted by the floods. The islands we see were mountains once, and the isolated buttes, standing in the midst of arid plains, were islands. Before Bonneville existed, its basin had not even the water it now contains; and even after the first flood it became dry once more, and the salty sediment was buried beneath the layers of earth that were washed to the basin by the inflowing rivers. So deep was this coating of alluvium, that the second flood could not dissolve it, and Bonneville was a fresh water lake. It is facts such as these that the cliffs and deposits of clay and marl are made to tell. The story is full of strange surprises, and the deductions drawn render the great basin more interesting to the student than it can be even to the most ardent admirer of its grandeur and picturesqueness.

Briefly stated, the changes which Lake Bonneville experienced imply that there were two distinct climatic epochs in its history, both being of excessive moisture or cold, and which were separated by an interval of superlative dryness and preceded by a climatic period comparable with the present. The first epoch of humidity was by far the longer, and the second, which caused an overflow of the lake, the more intense. The phenomena occurred during the Quaternary time, which is the geologic yesterday, and were coincident with the volcanic activity of the Tertiary period, which presumably has not yet ended.

The "shore lines" on the mountains are distinctly visible. The level tracings have the characteristics of ocean shores subject to wave action, - by which all sea cliffs and beaches are formed, — and extend all about the lower slopes of the ranges which enclose the Utah Basin. The two best-defined ones are respectively one thousand and four hundred feet above the level of Great Salt Lake, and are named the Bonneville and the Provo. Between them are four or five other lines to which no particular names are given. The Bonneville shore line owes its distinction to the fact that it marks the limit between the wave-wrought surface below and the rain-sculptured forms which rise above. The shore lines are so clearly defined that they at once led to the belief that Lake Bonneville.

which created them, had an outlet, since a body of water dependent upon evaporation alone could not have maintained its level sufficiently long to make so clearly defined wave lines. Search was therefore made for the supposed outlet, which at last was found at the northern extremity of Cache Valley. The sill over which the waters were first discharged was soft and soon wore away, permitting the lake to be rapidly lowered. The second sill was harder and held the lake at a constant level, until its overflow was stopped by the climatic changes that finally diminished the water supply. The level of the first sill has been found to be that of the Bonneville "shore line," and the level of the second sill to be that of the Provo "shore line," - facts that satisfactorily correlate the history of the overflow with the history of the most conspicuous "shore lines "

That Bonneville twice rose until its size was ten times that of the present lake; that its bed was once a dry basin with a climate similar to that of the present time,—the geologists have little difficulty in proving. The successive uprisings are shown by the yellow clay and white marl precipitants on the mountain sides. The

one was deposited at one period, and the other at another; and dividing the two is a layer of alluvium which could only have been formed during a season of dryness, and after the flood which had precipitated the lower stratum of yellow clay had subsided.

The evidence of rain-sculpture everywhere observed on the slopes of the mountains, now half submerged by the alluvial deposits, proves the Bonneville basin to have been absolutely waterless before the lake itself first had an existence. On this supposition alone can the peculiar formations which are produced by the action of rain upon the most enduring surfaces be explained. Had there been a lake, the rain sculpture could not have been created beneath the surface. It is possible, to be sure, that the basin had a lower outlet than that of the Bonneville "shore line;" but during the period required for the burial of the mountain bases barriers must have existed, or the desert could not have retained the detritus

The erosion subsequent to the time when Bonneville was depositing its marl and clay has been immaterial. The sea cliffs, the embankments, the sand bars, and beaches, are almost as perfect as though the lake had but just left them. There are bowlders of quartzite and other enduring rock which still retain the smooth, glistening surfaces which the waves gave them so long ago.

Great Salt Lake has an altitude of 4,260 feet, and covers an area of nearly four thousand square miles. The water contains about fifteen per cent of salt in perfect solution, and is of such specific gravity that bathers find it almost impossible to sink. The lake, like the Dead Sea, has now no outlet. Though several rivers empty into it, there is never any overflow. Evaporation alone prevents inundation. At Garfield the beach is hard and shelving. Year by year the shore becomes more popular as a resort, and in time will have, like Newport, its villas and animated life.

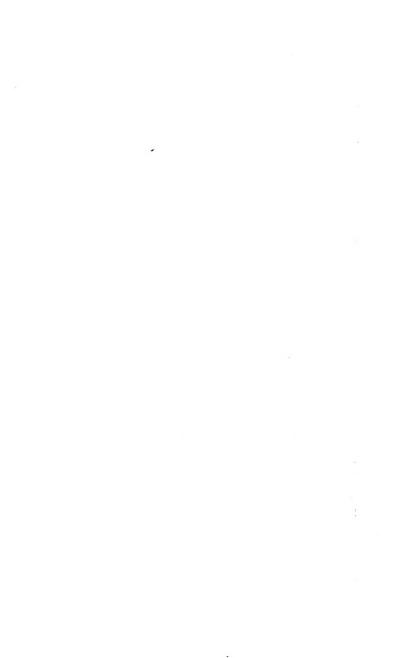
CHAPTER VII.

SHOSHONE.

A UGUST was lazily counting its last days before we were ready to leave the kingdom of Mormonism. We had already decided to go north to the Shoshone Falls (Sho-shó-nee) in Southern Idaho, and from there to the Yellowstone. September, we were told, was the best of all months in which to see the famous Park.

Getting out of Utah is nearly as interesting as entering the Territory. The journey northward toward Ogden is not so picturesque, perhaps, and the scenery *en route* is not so varied and sublime; but the views one has of valley and hill are pastoral, and for an hour at least the road closely follows the curving shore of the lake. Looking upon the vast expanse of water, so quiet and mysterious, one recalls the strange history of the salty sea which sleeps so serenely

THE GRAND LEAP.



in the midst of a waterless desert. There are no fish in Salt Lake, and but few boats are ever seen. As a rule the shores are flat and sandy, white with layers of salt; but far away to the westward are high mountains, wonderfully colored and having the roughest possible contour.

It is very customary to regard the middle West as utterly lacking in historical interest. That its modern history is meagre one cannot deny; and the story of the time when the Indians held it and waged their barbarous battles against the invaders from the East is soon told, and is now too well known to bear repeating. in view of what we already know through the geologists, one will feel that our deserts are not so barren of interest as might be supposed. Not every country in the world has once been the bed of an ocean. There was a vast amount of irresistible force employed in the dim past, - a force that drank the sea dry and that levelled mountains and fashioned the strange objects that to-day gaze down upon us from their crumbling heights. Plough the desert sands, and you will turn up monster sea-shells; and wherever you go there will be heard the

piping notes of birds you are accustomed to find along our New England coast. I have always taken a melancholy pleasure in hearing the plaintive notes of these little exiled sand-pipers of the desert. The disappearance of the sea must have been most unexpected and sudden to have left these water-loving birds stranded where the waves may never come again.

Mormon farm-houses are scattered along the entire way between Salt Lake and Ogden. Each has its orchard and garden and ample hay-stack, while a few are so large that one mentally fills them with a numerous family. Much of the land bordering the lake is very productive. The long wide fields we saw were all yellow with stubble, and piles of rosy-red apples were scattered about the orchards.

The town of Ogden, one of the termini of the Union Pacific, and a place well remembered by all transcontinental travellers, is not an interesting town, nor a picturesque one. It might have been both, for the site of the city afforded great opportunities. The mountains encircle it on three sides, and southward is a delightful view down the valley to the lake. Nature's sugges-

tions have been in vain, however, and the houses are provokingly ugly.

Of the mountain ranges contained in the Great Basin none compare either in height or beauty with that of the Wasatch. From Ogden the view of the range is particularly satisfying. Its canons, opening upon the valley which the city occupies, are watered by mountain streams. and the rocky walls are of red-tinged sandstone relieved by strata of pale yellow and gray. From the higher limits of the gorges the outlook is over many miles of country. Far southward is Mount Nebo, the highest peak of the range; nearer at hand is Great Salt Lake, and in the distance are the sharp-pointed or flat-topped buttes which the Bonneville waters have left stranded in the midst of treeless wastes. The area of the Great Basin, larger than that of the Middle and Eastern States combined lies all around you. Looking upon it the history of its formation comes vividly to your mind, and its extended limits teach once more the utter impossibility of trying to see all the West in one season.

The geological survey of the Basin involves the study of many topics. Each mountain has a variety of strata and a history of its own, and the district as a whole contains every known group of formations. You cannot fully study it in sections, for the various geologic systems — the Archæan, the Paleozoic, the Mesozoic, and the Tertiary — are each developed in so many localities that no one can be understood until the whole area is traversed. Volcanic rocks are everywhere, and the phenomena attending the growth and decay of mountains are always present.

If the restricted areas that owe their configuration to the recent action of lakes or oceans or to the passage of glaciers are excepted, it may be said that the whole surface of the land exemplifies the "plastic art of rain." Other causes produce the hills and mountains, but rain is the agent which develops the forms that, in the West, are such noticeable features of the land-scape. Its work is untiring and systematic, destructive and constructive. It tears down and builds up. In summer the heavy showers wage yearly war upon the crumbling headlands; and in winter the frosts in the crevices force bowlders from their long resting-place. The curious forms of red or yellow sandstone are not the

result of accident but of design. Every object that we shall see, wherever we travel now, is an example of rain-sculpture. Some will be more wonderful than others. In the Yellowstone they will have surprising beauty; but whatever their degree of perfection they are still the exemplification of a force in Nature that is, in a great measure, the moulder of continents.

The only direct road from Ogden to the town of Shoshone, the nearest railway point to the Great Falls, is the Utah & Northern. It is operated by the Union Pacific, and from Ogden to Pocatello, in Southern Idaho, is narrow gauge. From Pocatello north to Butte and other Montana points, it is broad gauge. At the firstnamed town it connects with the Oregon Short Line, extending westward across Idaho to the leased line by which the Union Pacific enters Portland. Leaving Ogden at noon one reaches Pocatello at six. After supper there the Oregon Short Line train is taken for Shoshone, — a straggling little village whose lights greet you on your midnight arrival. The long journey of the day has not been an eventful one; nor has the scenery been very attractive. From Ogden the Road leads past the high fronts of

the Wasatch Range, through winding valleys containing a succession of Mormon farms and villages. Later on the mountains are seen only in the distance, and in their place are dark-hued volcanic ledges that skirt the edge of far-reaching plains.

Shoshone being so very dead, one cannot with propriety speak of it otherwise than kindly. In itself it is unimportant. The country surrounding it is covered with layers of dark-colored lava, and is so barren that the Shoshone cows eye every empty tomato-can with greedy interest. I doubt if the town, small as it is, would have even its present proportions were it not that south of it are the Shoshone Falls, and on the northwest the Wood River mining country. Tourists seek the one attraction, and fortune-hunters the other; and so far both have been well paid for their trouble. There is a branch of the railroad from Shoshone to the mines, and to the Falls is a wagon road twentyfive miles long, over which we drove, and over which I strongly urge every lover of whatever is indescribably beautiful and grand and sublime in Nature's handiwork to drive. After seeing the Falls we were ready to forgive the

town anything,—even the dismal welcome it gave us the night of our arrival, or the prospect it revealed in the morning when we for the first time looked upon the surrounding fields of lava.

The conveyances used in going to the Falls are decidedly primitive. Ours was an old Deadwood coach, lined with faded plush, and decorated on the outside by a bundle of hav, - a tempting bit of luxury which half-a-dozen cows were hungrily eving. The sun was hardly up before we were, and had only begun his work of lighting the country when we took stage-andfour and rattled smartly out of town. The lava beds stretched all around us, and only in the far distance could we see any hills. Southern Idaho is strikingly different in general appearance from the northern portion of the Territory. In the latter, mountains are omnipresent, and there are heavy forests of pine, fir, and balsam. In the south the levels are continuous, — treeless, nearly grassless, and so barren and deserted that during our entire drive there were no houses to be seen. Jack-rabbits and occasionally a passing horseman were the only living features. All was dark and silent, — so still indeed that the wind, which whistled through the creaking sides of the old coach, was like that which at sea sighs through the rigging of a ship.

It is not a hard drive to the Falls, - if one forgives the joltings he gets when too rapid time is made over certain parts of the road, — and the few hours of our journey were soon gone. Looking ahead, in the direction of the river we were soon to reach, we could see no sign of it. To all appearance the levels were unbroken. At last W., who acted as guide, pointed to a solitary piñon that stood boldly outlined in the distance, and said the river ran at its base. Keeping the tree in view, and sure of our information, we were still unable to find even the suggestion of the near presence of a river. To our eyes there was nothing beyond our immediate surroundings, - solitary plains, listless and bare.

Then, at last, came the revelation and the indescribable view of the erratic, rock-bound river. Reaching the tree, we left the coach and crawled out upon the blackened rocks. Below us opened the canon through which, a thousand feet below the upper levels, the river Snake has its course. The distance from where we stood to the water below seemed measureless.

THE GREAT FALLS, SHOSHONE.



The cañon was like a mighty rent in the earth,—an opening cut deep into the surface and with solid walls of rock rising abruptly from the river's edge. In a dark night, if unacquainted with the country, one would drive headlong into this gorge; and the river, at the bottom, would sweep away all trace of the tragedy. Even by day one might easily stumble into the cañon. There is nothing to herald its nearness; nothing to save one who makes the first false step.

The Snake River is a tributary of the Columbia, joining the latter in Eastern Washington. It is born in Wyoming, of the many streams that have their source among the mountains there, and flows westward through a cañon that for length and depth, and beauty of a rugged order, is one of the marvels of the world. Standing on its brink, or gazing upward from the level of the river, the impression upon one's mind is the same. You are oppressed by a sense of the awfulness of the creation; and watching the river moving along so calmly as it does just before the Falls are reached, you wish you could give it the green banks of some of the streams you know. There was never a day during our Shoshone visit that, for a mo-

ment, the region did not become a hideous reality from which I longed to escape. But all such moments were followed by hours when the very height of the walls that hemmed us in, and the wild noise of the falling river fascinated and exhilarated. You should see the river gather itself together for its leap into the lower depths of the cañon; should listen to the roar it makes: should feel the earth tremble with the shock; should watch the rising mists, ghost-like in the moonlight; should give days to the isolated place, to know the fascinations of Shoshone Falls. Telling one how high the Falls are, how deep the canon is, gives no idea of the place itself, of its coloring, and of its weirdness. The canon is a world by itself, full of novelties and strange sights. Night-loving bats live in the caverns that honeycomb the cliffs; and on the top of a high, slim pinnacle of red rock, rising amid-stream, an eagle has her nest and rears her brood. There are points overlooking the Falls where, unless strong, you will feel ill and dizzy; and there are others where you will delight to sit and read.

Above the Falls, at the ferry crossing, the river is wide, deep, and smooth. The cliffs are

ABOVE THE FALLS.



reflected on its surface as clearly as though the Snake were a mirror. It is there that one takes his daily row, calling for echoes as he glides past the overhanging ledges, and gaining a point at last where there is a view up the stream, beyond a series of rapids, to the Twin Falls, light and feathery against their background of rock. In a meditative mood one seeks this quieter part of the river for the restfulness it offers. Bushes and tufts of grass cling to the water's edge, and there are isolated caves which, deep-set and rock-bound though they are, still have their sense of peace and quiet and repose that is most welcome after the wild tumult of the cañon below.

To meet the demands of the constantly increasing number of tourists visiting Shoshone, a rough wagon trail has been constructed down the north wall of the cañon to the level of the river. The path is long and steep, and commands an extended view of the upper cañon. At the river-side is a short stretch of sand, occupied by a solitary cottage belonging to Mr. Walgamott, the guide under whose care one visits the various objects of interest. A stone's-throw beyond his little cottage is the

ferry, — a flat-bottomed boat guided by wire cables and worked by a windlass. Driving upon this we crossed the river to the south bank. There, a few rods from the landing, is the little hotel that has lately been built. It stands on a high bluff directly over the Falls, and has an outlook both up and down the winding length of the cañon. The house is well managed, as we found to our delight, and the rooms and table are excellent. Stages make daily trips from Shoshone to the hotel; and the Falls, at last, have publicly made their bid for the approval of the multitude.

The actual length of the Shoshone Cañon is seventy miles. Thirty miles below the entrance to the gorge the principal scenic features begin. From near its source to the eastern end of the cañon the Snake flows above-ground through an area that is unparalleled for the height, number, and beauty of its mountains. It has nearly forty tributaries, — some of them fed by geysers and others by melting glaciers, — and its waters are the coldest of any known river.

The American Fall, forty feet high, is the first cataract of the river as it flows down stream. It is here that the Oregon Short Line

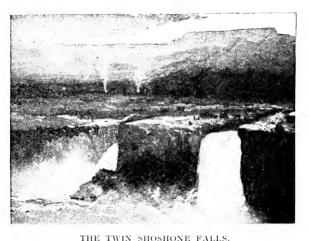
crosses the Snake. Far beneath the bridge one sees the boiling waters, their whiteness relieved by uprising ledges of volcanic rock. Were it not for Shoshone, the American Falls would be famous. As it is, they are neglected for the more wonderful cataracts farther westward.

Seventy miles beyond the railroad crossing the grand cañon begins. The river, ever restless, sinks deeper and deeper into the surface of the earth. Now it lashes itself into foam, now tumbles over obstructing ledges. Here placid as a mill-pond and scarcely moving, it again rushes madly onward, deaf to all entreaty. It is like a fiend, I think, loving darkness rather than light, battling with its walls, raging at its confinement. Sometimes the water is emerald-green, light and transparent; then it is dark, and the froth floating on its surface is as eider down, by contrast.

The first cataracts within the cañon are the Twins, or Upper Shoshone Falls. They have a single leap of one hundred and eighty feet. A huge rock, caught in mid-stream, divides the river into two channels, each seventy feet wide, and through these the water flows. The basin which receives the Falls is nearly circular in

shape, and is like a boiling caldron, filled with troubled waters and sending forth dense masses of spray.

Below the Twins is a half-mile of rapids. Farther down, the river grows tranquil again,



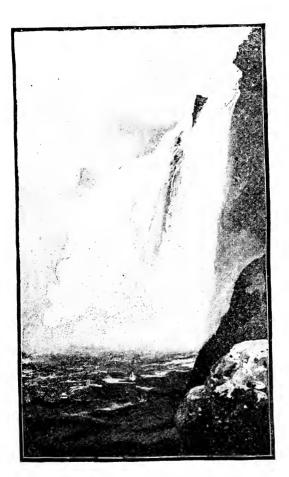
and then, a few rods from the ferry-crossing, contracts to a width of less than six hundred feet, and makes noisy preparation for its greatest fall. At the ferry is heard the loud roar of the water as it strikes the hidden ledges below; while, shrouding the long white line marking the

point of actual fall, are the heavy mists which rise high toward the tops of the cliffs and are tossed about by the winds.

Near the brink the river widens to a quarter of a mile, and is divided by three rocks, corresponding to the islands in the rapids at Niagara. Just below these a smaller island forces the water to the left in a small cataract about fifteen feet high. To the right is Cedar Island, between which and its mate are small falls, or rapids, whose waters, uniting, sweep past a crescentshaped beach to the final plunge. To the right of Cedar Island the river is obstructed by redtinged rocks, with sturdy little pines clinging to their tops, that form a most picturesque series of falls. Between two of these islands is the Bridal Veil Fall. Next to it is the Bridal Train. Both have a leap of eighty-two feet, and bear a wonderful resemblance, as the water glistens in the sunlight, to the faultless lace of a royal bride's veil and train. "While watching this enchanting spectacle," says a writer, "one can fancy the gothic arch of the cave to the right the entrance to a chapel, and in the delicious murmur of the jewelled drops trickling from the rocks near by can detect the soft strains of Mendelssohn, or in the roar of the Great Falls below imagine the thunders of Wagner, in Lohengrin."

At Niagara the river falls two hundred and twenty-five feet in twenty-five miles. At Shoshone the Snake descends five hundred feet in four miles. The Great Fall of Shoshone is crescent-shaped, and is two hundred and twentyfive feet high by nine hundred and fifty feet wide. The plunge is unbroken. Facing it one sees a quivering wall of water that stretches from one side of the canon to the other. The roar is deafening, and its force so great that the displaced air is as fierce as a tornado. The earth trembles from the blow it receives. You yourself are drenched with spray; and the rising mist is like a fog at sea, blown hither and thither, and so catching the sun's rays as to form arch upon arch of glorious color.

The high bluff on which the hotel stands makes quick descent to the river at the brink of the Great Fall, and is overgrown with junipertrees. Through the grove are pathways to various points of observation. From one of these, named Lookout Point, the view embraces the river both above and below the Great Fall,



UNDER THE GREAT FALLS, SHOSHONE.

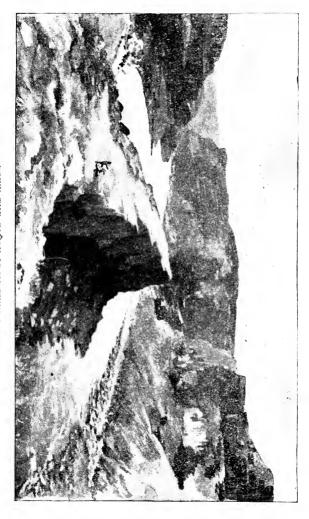


whose crest is at your feet. Up-stream the Snake is a mass of cataracts, milky-white, while for their background are the tall black cliffs of the cañon, their sombre coloring making the whiteness whiter and the lace-like appearance more pronounced. Between the upper cascades and the Great Fall the river is full of animation. It fairly glistens with anticipation of its wild leap. Its waves, nearing you, beat upon the rock which is your foothold, and noisily roll upon the little stretch of sanded beach which extends in crescent line from the brink you overlook to the Mill Race Cascade, a short distance away.

But fascinating as this view is, one must not neglect that down the cañon. It has not the varied beauty of the other, perhaps, but its sublimity is fascinating. Rising from the awful depths are clouds of mist, through which you see the river nearly five hundred feet below, still fretful and strewn with foam, but resolutely rushing onward to whatever new dangers it may encounter. Its width is less now than it was, and the cañon walls are higher. As you look, the waters round a projecting angle, and beyond there is nothing but the solid walls of rock.

The beauty of Shoshone Falls is that they bear study. The more you know of them, the better acquainted you become with them, the more strongly they appeal to you. We viewed them from every point. If desirous of picturesque effects, we selected Lookout Point; if anxious for more startling features, we sought the narrow level that clings to the cliffs below the Great Fall. It is there that one gains a full conception of the size and power of this Western rival of Niagara.

Besides those I have mentioned, the cañon of the Snake has many other attractions. In the cliffs at the foot of the Great Falls are curiously fashioned caves. In one the roar of the waters reverberates in sounds like the paddle-wheels of a steamer run at full speed; in another — an ear-shaped grotto two hundred feet high, and named "Diana's Bath-room" — cold drops of water trickle from the ceiling walls, and are caught by a stone-rimmed basin set in the floor of the vaulted chamber. The trail to the river level below the Falls is down a steep embankment nearly one thousand feet high. The descent and the returning climb form no inconsiderable labor for the inexperienced; and





yet I am sure that none will regret the exertion. At the base of the trail the ground is covered with water-soaked timber that has been hurled over the Falls and tossed upon the shore; and in the crevices of the high vertical walls of the gorge are moss-grown cedars, dripping with moisture.

Among the more prominent landmarks around the Falls are Dewey's Bluff, one thousand and fifty feet high, Sentinel Rock, Lover's Leap,—that never had a tragedy,—Creighton's Bluff, Walgamott Island, and the Natural Bridge. Beneath the latter, as through a frame, one sees the silvery front of the Great Fall, and in the distance the bold outlines of Dewey's Bluff. The walls of the cañon are everywhere cut into gigantic basaltic and trachytic columns, whose coloring is red, yellow, brown, and black.

The scenery near the Twin Falls is made interesting by the geological features. You can trace the course of the canon for a mile or more, and your best view of the cataract is from the high embankment at the base of which the river speeds. In our pilgrimage to the Twins we drove along the south side of the river to the entrance to Adams' Canon. Leaving our team

there we walked through the rock-strewn gorge. It is full of fitful shades, and is shut in by towering cliffs. It is wonderfully impressive, and Dante, I am sure, would have revelled in its dark beauty. The huge blocks of stone are often set with great precision, much as though human hands had done the work. But again, the walls are full of rough projections and penetrated by mysterious-looking caves.

At the end of Adams' Cañon is an open space extending to the brink of the river. You can, if inclined, reach the base of the Twin Falls; but the path is steep, and at the end of your labor you are wet with spray, and your ears are deafened by the noise. It is better to remain on the top of the bluff; for from there the view is extended, and you can see the river gather for its plunge and, after its fall, hurry away down the winding gorge.

It is not known who discovered the Shoshone Falls, nor when they were first visited. No mention is made of them by the emigrants, who must have passed near the cañon on their way to Oregon, and it is doubtful if they knew of their nearness to the wonderful place. The only man to lend historical interest to the Falls was

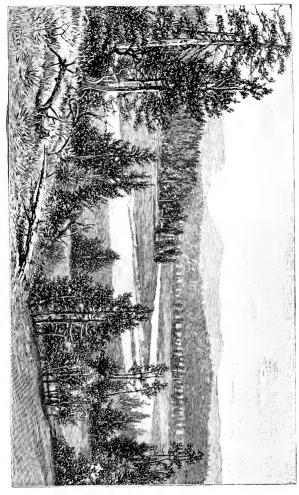
Tom Bell. He was a miner who worked a claim on the island separating the Bridal Veil His custom was to cross the river by boat. One day, when in mid-stream, his oar It is needless to picture the result. Poor Tom went over the brink, of course, and Shoshone had its tragedy. If local information may be relied upon, one or two Chinamen have since shared Bell's fate. It is said that the sandbars around the islands above the Falls are rich with gold, washed down by the river. If this is so, we may expect any number of casualties; for miners will go wherever gold exists, and the Shoshone is no respecter of persons, but gathers in whoever dares to come within its reach

CHAPTER VIII.

A NEW ROUTE TO WONDERLAND.

H E who reads the story of early days in the far West, and especially that portion relating to the adventures of the men and women who made the hazardous journey across country to Oregon and California, will find frequent mention of a certain region where there was an abundance of green grass and water. It was here that the footsore people rested. The place was to them a blessed sanatorium, an oasis in the desert where the springs poured forth Vichy and Apollinaris that could be had for the taking.

The present name of this famous camping ground is Soda Springs. Leaving Shoshone we returned to Pocatello, and from there went eastward to the little settlement that has sprung up around the series of ice-cold, medicinal waters. The springs are in Bingham County, Idaho, sixty miles east of Pocatello, and are on the Oregon Short Line. They occupy a depression





among the Wasatch Mountains and have an elevation of six thousand feet. In summer the days are warm and the nights are cool. Near by are some of the best hunting and fishing grounds in the West. Blackfoot Creek, ten miles distant, is famed far and wide for its trout. A new hotel has lately been built, which is not only very comfortable, but from which the prospect is exceedingly attractive. The hill-sides were gorgeous with color when we saw them, and on some of the higher peaks of the range were patches of newly fallen snow. The plain surrounding the house is wide and level; and guarding it are low-browed foothills, back of which rise the mountains.

The many springs at this isolated little resort contain medicinal properties that render them as efficacious in the cure of disease as the more celebrated springs of Germany or Saratoga. The waters are charged with bi-carbonate of soda and potash, chloride of sodium and potash, sulphates and carbonates of magnesia and lime, carbonate of iron, free carbonic acid gas, and a multitude of other ingredients. The springs are scattered at random over the valley, and the waters bubble forth from the earth in such

abundance that they form numerous rivulets which flow across country until lost in the plains beyond.

At one of the springs a bottling company has begun active work. The product shipped away is better, according to competent judges, than the imported Apollinaris. In its natural state the water is as sparkling as champagne and has a delicious flavor. This is true of the other springs; their taste is never disagreeable.

From the time when Brigham Young visited Soda Springs and blessed its healing waters, to the present day, the valley has been the Mecca of Mormons. They visit it religiously and are unwilling to let the summer season pass without camping for a week or more in the near proximity to that which they are sure will give them renewed vitality.

The ride from Soda Springs to Pocatello does much to interest one in Southern Idaho. The country is well watered, and is a succession of fertile valleys, each filled with cattle and comfortable farm-houses, that are suggestive, in a measure, of those in the East. At Pocatello, however, the freshness is lost, and there are vast areas of dryness.

It is very well known, I presume, that there is a Vellowstone National Park somewhere in the West, and that a direct route to it is over the Northern Pacific road from St. Paul to Cinnabar, on the outskirts of the so-called "Wonderland." As a rule all visitors select this route. In taking another, the features of which afforded us infinite gratification, we were influenced in part by chance, and in part by the desire to escape the more beaten tracks of travel. Recalling our experiences I would suggest that our followers take advantage of our knowledge and do as we did: go to the Yellowstone via the Beaver Canon route of the Union Pacific, and leave it via the Northern Pacific. By so doing, two important advantages will be gained. First, you will save the annoyance of "doubling on your tracks," which all good travellers are anxious to avoid doing; and secondly, you will find features along the hundred-mile ride from Beaver Canon to the Park which do not exist in the Yellowstone. If fond of hunting or fishing, if not afraid of a few discomforts, if liking the free companionship of Nature, take the Beaver Cañon route. Its present simplicity will not last forever. The old log-cabins where you

rest to-day will soon be gone, replaced by "hotels," with their modern luxuries but utter lack of that quaint flavor which the present homely houses have; the winding trails you follow now, and which lead through woods of virgin freshness, and by the side of quiet rivers, will be the road-bed of a railroad. The West, as seen from the window of a car, is not the country introduced by the stage-coach. With all additional comfort, there is a loss of something which you cannot define, perhaps, but which will be understood by those who have driven at a ten-mile-an-hour pace through almost unbroken solitudes.

There is a regular line of stages from Beaver Cañon to the Park. From the railroad to Firehole Basin, near the southern end of the Yellowstone, the distance is a little less than one hundred miles. Leaving Beaver early in the morning, Snake River Crossing is reached at evening. Resting there over night, the journey is continued the following day, a noon halt being made at Manley's Cabin, in the Madison Valley, and the drive ended at Firehole in the evening. Portions of the road are rough, and the accommodations are primitive. But he who does not object to im-

material annoyances need have no fear. If tired, you have but to rest at either Snake River Crossing or Manley's or at Henry's Lake; and those who prefer may engage their own teams of the Stage Company, and make camp along the road wherever the beauties of Nature tempt them to linger.

Beaver Cañon station is a night's ride north of Pocatello, on the Utah & Northern Road. Parallel ranges of hills guard the little town on the east and west, and past it flows a creek that winds down a valley which the stage line follows a few miles before turning directly east toward the Park. Our stage-and-four was ready on our arrival, and long before the sun was fairly above the hills we had taken our seats and were clattering down the cañon. The day was perfect, — a cloudless sky above, the air fresh, the dust settled by a rain of the night before. In a team that followed us were our boxes and trunks: and snugly stowed away among them sat the artist, with camera ready for work, and contentment shining from above blond beard and beneath the artistic broad-brimmed hat.

Once out of the cañon the prospect broadened. Away to the southeast rose the moun-

tains of the Wind River country, in Wyoming, and due east were the peaks surrounding the Yellowstone. Nearer at hand bush-grown slopes and tree-covered ridges rose abruptly from out the levels and extended far north to the mountain ranges of Montana. Cattle were feeding on the sun-dried tufts of grass scattered over the plains, and there was a happy mingling of harmonious colors.

You cannot photograph the far-reaching vistas of the West; they must be seen to be appreciated. Their lights and shadows are ever changing. To-day the more distant peaks are the faintest possible blue, and you can scarce distinguish their outlines. Again, the same mountains stand boldly forth, their rough sides clearly revealed and their colors most pronounced. The peculiar character of the atmosphere is the cause, in a great measure, of this ever changing appearance of natural objects. The neutral gray of the east rarely exists; instead there is a pale blue tint, deeper at one time than at another, but forever forming a vast sea of visible air through which the white mountain peaks and the dark green forests reveal their individual bues. You will notice this fact

wherever you may be among the Rockies. Distant hills are seemingly brought within your very reach: and the shadows in the cañons are black as night. As we drove slowly along over the brown levels stretching far southward, our minds were affected by the benign influences which the region exerted. The delicious air, neither hot nor cold, the extended views, the brilliant colorings, the sense of freedom from all prosaic conventionality, were conditions by virtue of which life was given a new meaning. Its dull realities were felt no more. If tired of one view we had but to look in another direction to find a different one. The low hillsides at our left were covered with scattered groups of pines and asps, brilliant with color, and in the depressions of the mountains were dreamy gorges opening upon broad grassy meadows.

Twenty-five miles from Beaver are the Camas Meadows, long wide levels enclosed by hills and mountains and covered with grasses as brown as those of the plains. Here we had our luncheon, eating it in the open air, the fields surrounding and the mountains guarding us. Near us ran a little stream, clear as crystal, and on its left bank stood the log-cabin of a pioneer, — a rude shel-

ter, but one not without its interest and phase of life away out here in the wilderness. In a corral near the house were a score of fresh horses, four of which our driver selected for the afternoon journey.

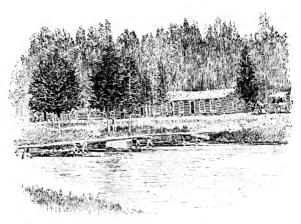
Our camera was an object of peculiar interest to the lonely woman who lived in the cabin. It was rarely that she saw so good a chance to have her children photographed, she told the artist, and she wanted his terms at once. Not being able to give her immediate results, the trade fell through. The family consisted of the father, mother, and two children, the latter being the picture of health. The parents had moved to Camas from Missouri, and were not enthusiastic over their new quarters. The winters were terribly cold, they said, and there was little time in the year for farming. They "guessed" they should move in the fall. Just before we left, the small boy brought his gun for us to see. There was fine hunting, he said. The meadows were full of sage-hens and rabbits, and he always could catch as many trout as he liked. Both the children were talkative, but the older members of the family were heavy and taciturn.

Getting well away from Camas we found the

country less level than before, and our road ran nearer the mountains. In the southeast were the "Three Tetons," now standing out in majestic prominence, their sharp peaks white with snow, and the sides of deepest blue. Directly eastward, in the direction of the Park, chain after chain of hills appeared in sight, some soft with haze, but others as clearly outlined as though they were ten, instead of a hundred or more, miles away.

It was now that we began to meet the several tributaries of the Snake River. They were mere brooks, as a rule, wide but shallow, and coursed through grass-grown fields. The names given to the streams and their different valleys were suggested by the few events that have happened in the neighborhood. Bottle Creek, for instance, is so called from the fact that Generals Sherman and Sheridan happened to meet and make camp on its banks. On the departure of these two famous men, the number of bottles left behind gave the creek its name. This story of our driver may not be true, but locally it is thought to be. Antelope Creek and Shot Gun are names of equally uncertain origin. Near the latter lives a trapper whose log-cabin is decorated on roof and sides with sun-bleached trophies of the hunt. Huge antlers are suspended over the narrow doorway, and skins of animals are tacked to every sunny place.

It was nearly sunset before we caught sight of the Snake, and the day had ended before we reached and forded it. Just across the stream



SNAKE RIVER CROSSING.

stood the row of cabins which some adventurous landlord has built for the accommodation of passing travellers. The forests come close down to the rear of the houses, and a few tall pines stand guard in front. The Snake at this cross-

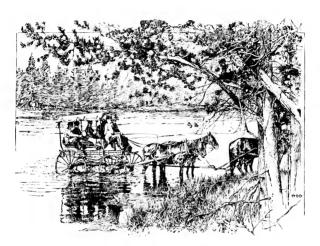
ing is less than twenty rods wide, but flows with considerable swiftness and is of crystal clearness. A foot-bridge of logs connects the two banks, and there is a flat-bottomed boat which one may charter if desirous of making a trip to the quiet coves where trout are to be found.

It was like meeting an old friend to see the river again. Throwing a chip into the current, I wondered how soon it would reach Shoshone. Not long, indeed, if it went so swiftly all the way as at first. Possibly it would escape the driftwood below the Falls, and would sail on and on until it reached the Columbia and the Pacific. There is a sort of fascination in watching rivers like the Snake. They are full of courage, poor innocents! and are ever hurrying on to what they cannot foresee is their destiny. I am sure this by which we rested would never have been in so great haste had it known of its long, dark cañon far beyond, and of its wonderful leap into a misty gulf.

After supper we adjourned to the dimly lighted kitchen to talk with the trappers, who had just come in with their load of game. The spokesman was a most voluble individual, and

so fired our enthusiasm that we were more than half inclined to abandon our teams and take to the woods. If there was game in the world, he said, it was here in the forests that surrounded Bear? Ves. Elk? In abundance and antelope? Yes. He had seen a dozen elk in a week, and had that day killed a few. He could not begin to tell us of the sport there was. He had been a hunter in the region for years, and knew every nook and corner in the place. Far away to the south the country is covered with dense forests and a succession of mountain ridges. North of the Snake the valley is without timber. The hills are low and covered with sage brush and scattered tufts of tall grass. Here is the paradise of bird shooting, the creeks and sage being the resort of countless wild duck and prairie hens. Among the mountains that border the northern side of the valley is found the larger game. Numerous hunting parties make the cabins at First Crossing their camp, and from it take long tramps into the wilderness of backwoods. The trappers we talked with support themselves by their rifles, and have hardly known any other life than the one they now lead. During the Indian wars they acted as scouts for a season, but when the troubles ended went back to the woods.

The twenty-five mile drive from the crossing of the Snake to Manley's Cabin was so attract-



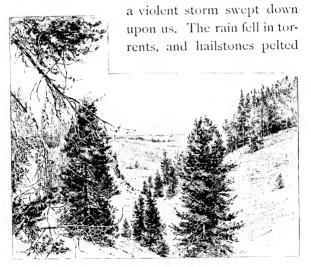
FORDING THE SNAKE.

ive that we gave a day to it. For the first few miles the road led through the woods. On our one side were had occasional glimpses of the river, but to the right were thickly growing trees. Later we crossed the stream, stopping midway to enjoy its great beauty. Each bank was heavily fringed with trees, drooping over the water and mirrored in the placid surface. In a little cove near by stood a solitary heron industriously fishing for his breakfast, and bevond were some ducks paddling contentedly about and unmindful of our presence. Not a sound, save the quiet murmur of the trees and river, disturbed the silence, and the air was heavy with the perfumes of the forest. The view was our last of the Snake. On gaining the opposite bank our route would be northward, while that of the river was due east, It was well. I thought, to see the stream as it now appeared. Placid itself, its surroundings were all in harmony; and the river at last was beautiful, with no suggestion of having an evil spirit or of being boisterous and in haste.

A few miles beyond we left the forests and entered a great circular basin, level and grassy, and enclosed by tree-covered hills. Directly across this ran our road, its course easily marked and the point where it climbed the hills clearly seen. The basin is known as Henry's Lake Bottom. It is ten miles wide by as many long, and at its upper end is Henry's Lake, — a bright-blue body of water filled with fish and fed by mountain streams. A cabin that stands

on the shores is a favorite camp for hunters, and is rarely without its visitors. In the meadows through which we drove were scores of wild herons. Listening, we could hear their melancholy cries, and seeing us they took wing and leisurely flew away.

Midway across the valley we had a taste of winter. Before aware that the sky was overcast,



TYGHEE PASS.

our wagon-top. In half an hour the ground was whitened, and a biting wind was blowing. Then,

as suddenly as it came, the storm subsided, and the sun came out; and, as we slowly toiled up the steep slopes of Tyghee Pass, by which the road leads out of the basin, we could see the surrounding mountains robed in their dress of winter. To the east, from the top of the Pass, we looked into Madison Valley; and westward could trace our long course and look down upon the lake and its remarkable surroundings. The asps and maples on the mountain-sides were all gold and crimson, the grasses were brown, and the lake a transparent blue. The air was like a tonic, and our blood flowed free and fast. Surrounding us was a glorious wilderness, all undisturbed by man, and so beautiful in conception and creation that one felt it a sacrilege to speak. Forest and intervale, dark pines and trees alive with color, snowy peak and woodcrowned hill, were all crowded into view.

A few years ago the most direct way to reach the Yellowstone Park from the West was by stage from Virginia City, Montana, to Henry's Lake, and thence by the road which is now followed. The line was established during the Star Route period, and was heavily subsidized. When the frauds were discovered, the stages

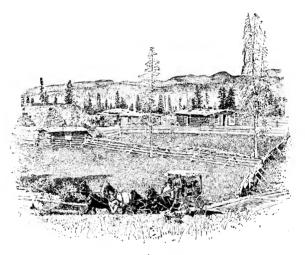
were taken off. The present route passes within a mile of the south shore of the lake, and not far from the log-cabin which has long been the favorite camp of sportsmen. The house is open for visitors at all times. It overlooks the wide basin lying to the south, and commands an extended view of the graceful hills and Sawtell's Peak, a high, flat-topped mountain rising to the west of the valley. The lake is fed by several streams flowing into it from the mountain gorges, and is filled with fish. In all the West there is not a prettier body of water, and I know of no valley with greater attractions for all lovers of Nature. It resembles the isolated bits one now and then finds tucked away among the Alleghanies. All its streams are of fresh, clear water, and the slopes are carpeted with grasses that grow in the shade of pines, ash, and maple.

From the top of Tyghee Pass we drove at once into the forests which completely cover the long slopes of the western side of Madison Valley. For an hour or more the monotony was unrelieved. The trees surrounding us hid all outlines of the valley. At last, however, there were more extended outlooks, and from the grass-grown areas which had lost their pines,

or which had never had them, we could trace the outlines of the far-away range which forms the eastern limits of the Madison Valley. It was forest-covered to its very top, and in the north joined the higher peaks of the great Gallatin Mountains, which fill Eastern Montana and extend to the head-waters of the Missouri. tween us and the range lay the great level, filled with forests, through which the river takes its course. The Madison is one of the great tributaries of the Missouri, and was named by Lewis and Clarke. It has its source at the southern end of the Yellowstone Park, where it is known as the Firehole River, or South Fork of the Madison, and just before entering the canon by which it reaches the valley, receives the waters of the Gibbon River, one of the important streams of the Park. From the valley it flows northwesterly to a point north of the Gallatin Range where, with the Gallatin and the Jefferson, it forms the Missouri. Few rivers of the Northwest are longer than it or so tortuous, and none have birth in so strange a place; for where the Madison rises the ground is covered with geyser cones, and its waters are hot with the overflow from boiling springs.

Toward sunset we reached Manley's Cabin. It stands on the left bank of the river and is built of rough-hewn logs, the spaces between which are plastered. On one side the house is flanked by an open corral, where Manley keeps his cattle. On the other extend the open fields across which we had driven, and all around which grow the forests. Tired with our long drive, the simple house seemed a palace of comforts. In the evening we sat around the fire, and Manley told us of his life. It was very uneventful, he said, and in winter was most dreary. The storms were frequent and severe, and he was absolutely cut off from the outside world. In summer the visitors were numerous. Many made the cabin their head-quarters while on hunting trips about the country, and others stopped, as we had, for a night. For a living, Manley supplies the Park hotels with meat, eggs, and milk. In the future he hopes a railroad will reach his land and render it worth a tidy fortune. At present, he told us, life was a struggle, and the income was discouragingly small.

Our last day's drive was begun early and ended late in the afternoon. The air was crisp and cool on leaving Manley's, and patches of frost-work lay upon the grasses. It was well into September now, and winter comes early in this mountain country. From the cabin we drove across the Madison, and were soon among the forests. It is not over ten miles from one



MANLEY'S CABIN.

side of the valley to the other; but the road follows the course of an old trail, that was made for the especial benefit of those who wished to keep near the river, and greatly increases the distance. We rarely lost sight of the Madison,

and at times drove along its banks. It is a pretty stream, this far-away tributary of the great Missouri. Its valley is heavily wooded and has a series of parks, or intervales, which are as level as a floor and thickly carpeted with grasses. Some of these openings have been caused by fire, which has swept away the trees. and others are purely natural, free, even, from underbrush, and as neat and trim as though given daily care. Why they should have been left in the very depths of the forests, is a mystery. That they have been is a blessing, for they greatly relieve the monotony of a forest drive. We were constantly driving into and across them, and in one we stopped for luncheon and to give the tired horses a rest and bite of the grass. The pines in the Madison Valley are small in circumference, but are of great height. The country round about is overrun with game. Once, on gaining the top of a low ridge, we came upon a band of half-a-dozen antelope. The wind being from them to us, they were taken completely by surprise. But on seeing us they were off on the instant. rapidly moving flashes of dull-red and white.

Half-way across the valley is the western line

of the National Park. Reaching it we came upon the military camp established there. commanding officer and his men were away, but the cook gave us welcome. The post is not at all formidable to look at, and life there must prove rather a dull existence. The duty mainly consists in protecting the game within the Park limits from molestation. You can hunt and fish up to the very borders of the Yellowstone; but woe betide you if, in your enthusiasm, you chase a deer across the line, or allow your trout to entice you over the border! If caught trespassing, you will be arrested, your hard-earned game confiscated, your rifle taken away, and you yourself escorted to head-quarters at the Mammoth Hot Springs. There you may tell your story. If believed, your sentence will be light: a fine, perhaps, or a reprimand. If not believed, you will be forwarded to higher officials and dealt with as they please.

Dividing the western outskirts of the Park from Firehole, or Lower Geyser Basin, is a high, narrow ridge of land over which the wagon road climbs by an ascent so steep that, in pity for the horses, we sent the teams ahead and followed them afoot. At first the view was

obstructed by the forests; but later they were left far below us, and at the top of the divide the valley could be seen from end to end. Down its centre ran the Madison, winding in and out among the trees; far away in the distance was the clearing that surrounds Manley's Cabin. The view was panoramic, embracing a vast area of levels and hills, high peaks and dark-green forests. In all the broad expanse not a house could be seen. There was not a trace, not even a suggestion, of civilization. In spots the forests were dead and the trees white and ghost-like; but as a rule there was a continuous mass of green, lighted by the river and overlooked by mountain-peaks freshly sprinkled with newly fallen snow,

To the north of this last climb is the famous canon of the Madison. Through it the river flows on its way from Firehole to the valley. In time it is proposed to extend the stage road through this winding, romantic pass, and thus save the hard pull over the divide. If ever the Union Pacific is built to the borders of the Park, its terminus will be in the Madison Valley, and the only stage-ride will be that through the canon. Surveys to this end have already been

made, and Government has been asked to aid in making the road-bed that will follow the river to Firehole.

With a last long look at the country westward, we turned to the east and drove rapidly downgrade toward the Park whose strange features give it the name of "Wonderland." The Madison and its valley were soon lost to sight. We had reached the end of the Beaver Cañon road. Once more the forests surrounded us, and the old jolting stage creaked and groaned beneath the pressure of the brakes. Our driver, noticing our silence, said he "guessed we kind o' felt sorry to have th' drive end."

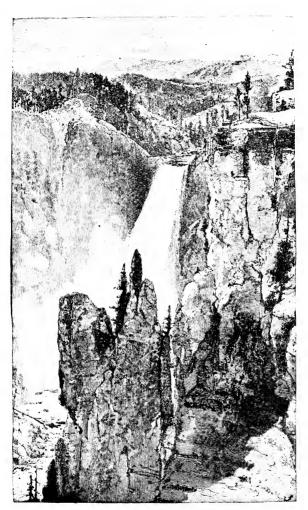
He was an admirable man, in his way, this driver of ours. He had his peculiarities, as we all have; but his temper was so serene that I envied him. If a leader became balky, he was never worried; if the climb was hard, he never thought of easing the load by walking. To all appearances he was a part of the seat he occupied. He talked little, and did not know one mountain from another. But he could tell in a moment when we, seated behind him, were having luncheon, and was always ready to join us. For a day I thought him rough and un-

couth and, possibly, worse than this. But at Snake River Crossing I found him seated in a corner holding a bright-haired little girl on his lap. "It's mine," he said, in answer to my look of inquiry. Later he told me of his young wife, a cook at one of the hotels, and of his baby girl. "'T ain't no easy work in this country feedin' 'em," he said, "an' they can't dress much. But they're a heap o' comfort, an' th' little one just dotes on taking a ride with me." After this, whenever I saw the man giving the horses their own way, I was sure his thoughts were wandering away to the coming winter, when, as he told me, he was "goin' to settle down an' have th' fam'ly with him."

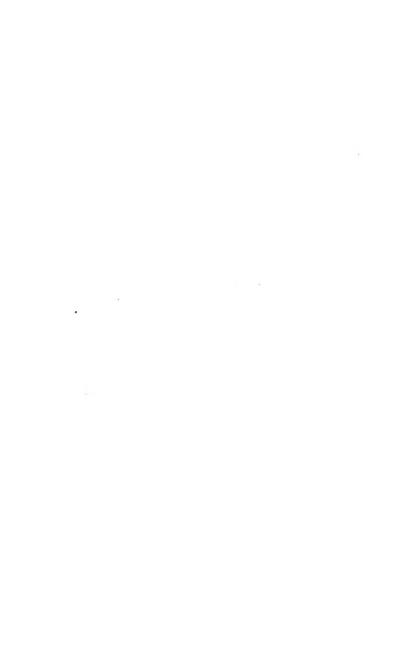
CHAPTER IX.

AMONG THE GEYSERS OF THE YELLOWSTONE.

CHAPTER on the Yellowstone must be about as satisfactory as a magazine article on America. In neither can you do full justice to the subject. I can suggest the features of the Park, but must leave to the guide-books all statistical description. As a matter of fact, the Yellowstone is so filled with natural curiosities. so overburdened with strange creations that have no counterpart anywhere in the world, that I doubt if any one who does not himself visit the place can form the least conception of its appearance. In certain portions it is a strange, weird storehouse of natural wonders: in others it is so beautiful that an artist cannot reproduce the gorgeous colorings. The geysers, the volcanic and calcareous formations, the Grand Cañon, the Falls of the Yellowstone, the Hot Springs, are all unique. The inspiration of stu-



FALLS OF THE YELLOWSTONE.



dents, they are likewise the source of unbounded delight to every beholder. They captivate the ignorant as well as the learned, and to the majority of beholders are wonderfully incomprehensible and full of fascinating interest.

On recommendation of Dr. E. V. Hayden, the eminent geologist and explorer, the Yellowstone National Park was wisely set apart by Congress, in 1872, for the "benefit and enjoyment of the people." The reservation, as the Park may more properly be termed, lies mainly in the northwestern corner of Wyoming, and extends slightly into Idaho and Montana. It is fiftyfive miles long by sixty-five wide, and includes, therefore, 3,575 square miles, or 2,288,000 acres. The surface features present a great diversity of character, the lowlands bearing a general resemblance to the parks of Colorado, and the ranges enclosing the vast region having the indescribable grandeur so characteristic of the Rocky Mountain system. The peaks rising high above these encircling walls dominate the entire landscape. From them the valleys of the Yellowstone and of the Gardiner may be traced for miles through the broken country which they traverse, and the Park, with its undulating tablelands, dark forests, and countless thermal springs, is visible from end to end.

It is a mistaken idea that the Vellowstone abounds in grand scenery. All its central area consists of forest-grown table-lands that are exceedingly monotonous, and from which the views are restricted. The only large mountain masses within the limits of the Park Plateau, as this area is called, are the Red Mountain and Washburne Ranges. Both have steep, but rounded outlines, with rudely conical summits which rise from three thousand to four thousand feet above the Plateau. The ranges are heavily wooded, and their lower slopes are covered with nutritious grasses which serve as food for the wild game that now abounds within the limits of the reservation. The average elevation of the Plateau is 7,500 to 8,500 feet, and its geological formations are entirely volcanic, composed for the most part of light-colored rhyolites. Volcanic conglomerates reach in places a depth of two to four thousand feet, and two of the ranges, the Vellowstone and the Washburne, are almost entirely composed of them. The older sedimentary groups, from the Cretaceous to the Silurian, occupy but limited areas now, but

once extended over the entire district. A number of specimens of fossil plants, obtained in the Park in 1872, indicate the existence of the Laramie, or Fort Union group. In a map published in one of Dr. Hayden's reports on the Yellowstone, the ancient outlines of the Great Lake, now occupying the southern end of the Park, are shown to have extended over a major portion of the country, thus proving that the water area near the sources of the largest rivers in the most elevated section of the West has diminished more than one half. The country has so changed since the period of its lake occupancy, that were it not for the erosion of the Vellowstone Valley no parts of the sedimentary strata, except those forming the higher summits of the East Gallatin Mountains, would appear. The geologic history is most interesting. The story of the glacial period and of the great displacements, synchronous with the general Rocky Mountain uplift, will explain the greatly diversified appearance of our Wonderland more clearly than can one who now sees the results that were accomplished. Glaciers existed on an extensive scale, and in exploring the deep valleys of the higher ranges geologists are constantly finding the rounded rocks which the great rivers of ice have left to mark their course. In the Wind River and Teton Mountains glaciers still exist, and at times descend to an elevation of less than five thousand feet. That they once covered the entire Park Plateau area is asserted with assurance by many students of glacial effect.

The lowest elevation in the Park is 5,360 feet, at the mouth of Gardiner's River; the highest is 11,155 feet, Electric Peak, in the Gallatin Range. The continental water-shed crosses the Park in the southwestern part, and is flat and illdefined. It enters west of the Lower Geyser Basin, and leaves at a point south of the south arm of the Yellowstone Lake. On its one side are the sources of the streams that join the Snake River: on its north are those that are tributaries of the Missouri. Few visit the southern slopes of the divide, but confine their attention to that portion of the Park bordering the Yellowstone, the Madison, the Gardiner, and the streams of smaller size that flow through the forests and down the many canons until reaching the great Missouri. The Yellowstone alone has a drainage area of nineteen hundred square

miles, and possesses the most beautiful and picturesque features of any river in the Park. It flows at the base of the great Yellowstone Range, forming the eastern barrier of the Park, and is bordered on the west by the mountains of the Washburne group. Its course is nearly northwest until reaching the huge shoulders of the Gallatin Range, filling the northern end of the reservation and extending over into Montana, when it turns due north down a wide valley enclosed by white-capped peaks that are landmarks for miles around.

The season during which the Yellowstone Park may be visited extends from the last of June to the middle of September. At other times the hotels are closed and the roads obstructed by deep snow. In winter the region is Arctic in temperature and in appearance. Mountains and hills, valleys and minor streams are buried, and the cold is intense. The rising vapors of the boiling springs cover the trees with fantastic decoration, and terrible avalanches tear their way through the forests. The place is deserted by all save the keepers at the hotels and the wild animals who make the Park their home. Mr. Haynes, the official photographer of the

Yellowstone, was successful in reaching the Lower Geyser Basin a few winters ago; but, with that one exception, I know of no explorer who has dared brave the Arctic weather of the snow-bound place.

The first authentic information regarding the National Park is derived from the report of Captain W. W. De Lacy, who conducted a party to the Lower Basin in 1863. The region was then comparatively unknown. Even the trappers of the Northwest had little faith in the existence of its natural wonders, and all pretending to have acquaintance with them were regarded as unreliable romancers. The first white man to explore the district was undoubtedly a man named Coulter, who belonged to the Lewis and Clarke expedition. On the return of that expedition Coulter, at his own request, was discharged near the mouth of the Yellowstone, and immediately returned to the country above the forks of the Missouri. There his companion was killed by the Blackfeet Indians, and Coulter himself made a captive. On his escape, some time later, he joined the Bannocks, a tribe whose range then included the Park area. It was either during his captivity or voluntary life

with the Bannocks that Coulter gained his knowledge of the country of hot springs and geysers; for in 1810, on his return to St. Louis, he is reported as telling strange tales that were interesting, but of course highly improbable. Even so late as 1859 none really believed that there was anything really remarkable in the Yellowstone, and all reports regarding the phenomena were considered but idle tales. The region had its visitors, no doubt; but the man who could tell what he saw without exaggeration, seems to have been lacking. In his report for 1878 Colonel Norris mentions finding a block house near the Grand Cañon, and elsewhere of a caché of marten traps and other relics of early trappers.

The report of Captain De Lacy attracted little attention. In 1869 two prospectors entered the Park and went as far south as the lake, crossing from there to the Geyser Basins. Their story at once became widely known, and created much excitement. The following year a large party of Montana settlers, under the lead of General Washburne, then surveyor-general, made an extended survey of the Park, visiting most of the places known to-day. When near the head of the lake Mr. Evarts, a member of the expedition,

became separated from his companions and was After suffering great hardships he was found near the Mammoth Hot Springs. his honor that the name Mount Evarts is given to the high peak which overlooks the narrow valley containing the great lime terraces that are now so often visited. In 1871 Dr. Hayden made his memorable journey, the report of which was presented to Congress, and since that year the Park has rarely been without its visitors. Countless descriptions of its beauties and wonders have been published, and the reports of the Government Geologists, issued from time to time, have given the scientific explanation of whatever is strange and phenomenal. In 1877 the Nez Percés Indians raided the Park, killing several people and destroying whatever property they could find. They were pursued by General O. O. Howard, who followed nearly the exact course of the Beaver Canon route through Tyghee Pass, and across the Madison Valley. In 1878 the Bannock Indians entered the Park, and were captured by General Nelson A. Miles. At present the Indians are under complete control, and the Park is without dangers of any kind. It is under the charge of a general superintendent, and careful watch is placed over the most frequently visited places to see that none of the formations are mutilated.

The so-called lower, which is really the northern, end of the Vellowstone contains the famous lime formations known as the Mammoth Hot Springs. A day's stage-ride due southward are the Lower and Upper Geyser Basins. Midway between these two features of interest, but lying to the eastward, are the Cañon and Grand Falls of the Yellowstone River. Directly northeast of the Geyser Basins is the Yellowstone Lake. An ordinary tour of the Park means a visit to these several places. The Government has built a series of roads connecting them; and large hotels, all under one management, have been erected at Norris and the two more southerly Geyser Basins, at the Cañon, and at the Hot Springs. The latter hotel is of huge size, and has many of the modern conveniences. The others are smaller, and make little attempt at either beauty or comfort. They serve the brief demands made upon them, however, and one need fear no material privations while visiting the Wonderland country. In time the Government roads will be so extended as to make the

stage-ride less long and hard than at present; and one may then have the additional pleasure of going to the lake, now rather remote and inaccessible to all save those who do not mind rough riding and primitive accommodations.

As we descended the wooded ridge over which we had climbed from the Madison Valley, there were views eastward through the trees of the Firehole Basin, toward which our road led. The air was filled with the strong sulphurous odor which is peculiar to the region, and scattered over the grass-grown levels were rising clouds of mist, born of the boiling hot springs. Far beyond the limits of the valley the hill-sides were thickly overgrown with forests, and in the extreme distance were tall white peaks. The wood through which we passed led down to the very edge of the basin, and there were even scattered masses of trees in the valley itself. But the long, wide stretches of grass were everywhere dotted with the geyser springs, here gathered into groups and sending forth dense volumes of steam, and again completely isolated and having a field all green and fair except the one weird spot from which the heated waters poured their rising clouds.

Looking for the first time upon the geysers and hot springs of the Park, one experiences a peculiar sensation. He grows distrustful of the very ground beneath his feet, feeling that even there may be mysterious caverns where the air is filled with sulphur gases, and where heated waters are ready to burst through the walls that hold them down. Both the Upper and Lower Geyser Basins are fairly honeycombed. In whatever direction you look are the same masses of cloud-like vapor, outlined against the forests behind them; the same brilliantly colored pools, with delicately tinted rims; and, far away, the silent, white-robed peaks. You may tire of the geysers, and grow indifferent to the cause of their existence; but the general features of the Park landscape — its vastness, its varied coloring, its bold mingling of the grand and of the picturesque — you can never forget nor cease to appreciate and enjoy. The air at all times, and particularly in the early fall, is wonderfully pure, bracing, and clear, and the sky is rarely overcast. As the sunlight falls upon the great unbroken forests and strangely fashioned geyser cones, the effect is indescribably charming. Each hue is intensified, as on the ground-glass of a camera; and day by day the Park grows more fascinating and replete with interest. Its scenery is often suggestive of that of other parts of the Rocky Mountain country. But as surely as you are ready to say this is so, the sudden appearance of a boiling hot spring, or the ghost-like uprising of a geyser stream will enforce the fact that, notwithstanding the occasional similarity, the Yellowstone is still a region peculiar to itself, strangely fashioned and impressive to a marked degree.

The ten-mile drive from Firehole to Upper Geyser Basin has, in addition to its other features, the charm of certain novelty. To one fresh from the comparatively prosaic outside world, the sight of acres of steaming pools, of blood-red basins, and of incrusted fields from which comes a noise as of hissing serpents, and over which hovers a white shroud of mist, is a revelation. And when you at last come within range of the many active geysers that give the Upper Basin its name; when you hear them, now low murmuring, now giving out a loud, despairing cry; when you see the tall columns of water, smoking-hot, leaping skyward and filling the air with vapor, — you are ready to acknowledge that all preconceived

ideas of the Park were but vague and shadowy, and that the reality far surpasses even your wildest expectations.

Nearly midway between Firehole and the Upper Geyser Basin is a bit of lowland that has the most appropriate name of "Hell's Half Acre." Forests, still green and fresh, enclose the noisy, vapory place, but the half acre itself is one of wailing spirits. The treacherous crust, through which numerous springs find a vent, is burninghot, and one never knows when it will give way beneath his weight. The air is filled with sulphur fumes, and the whitened trunks of once stately pines, now being slowly buried beneath the incrustation, are like the giant arms of the doomed, vainly reaching forth for help, but relentlessly held by unseen hands.

The scientific name of the springs to which the local guide-books give the Satanic title I have quoted, is the Half Way Group, or Egeria Springs. There are thirty-nine different springs altogether, and two of them are among the most famous in the Park. The Grand Prismatic Spring is the largest, and measures two hundred and fifty by three hundred and fifty feet. Its coloring is wonderfully and indescribably brilliant

and varied. The outer rim of the huge opening, from which rise dense clouds of steam, is of a bright red deposit, and between it and the bluegreen water are circles of yellow, orange, brown, purples, and grays. Each hue is distinctly marked, and is intensified by a ground-work of gravish white. Next to the Prismatic is Torquoise Spring, intensely blue and overflowing through a long trough which is white on the bottom and has edges of salmon color and brown. Close to it is the Cliff Caldron, or Excelsior Geyser, three hundred and thirty feet in length and two hundred feet wide, the largest orifice in the Yellowstone. Until the year 1880, when its first eruption was witnessed, no one knew that the geyser was more than a spring. In that year, however, it manifested its power, and earned the right to its present reputation. The eruptions continued at irregular intervals from September 27 to October 7. The greatest height which the column of ejected water attained at any one time was three hundred feet. Rocks weighing many pounds were hurled high above the rising stream, and the Firehole River, which runs near by, became a foaming flood of boiling water. At present the geyser is enjoying

a long period of rest, and the water is twenty feet below the walls of the steaming cavern. It is constantly boiling over, however, and has formed a series of terraces traversed by deep, beautifully tinted channels.

One of the stories told in early days was to the effect that the Yellowstone Park had great areas of petrified sage, "with all the leaves and branches in perfect condition, while the rabbits and sage hens were still there, perfectly petrified but as natural as when living; and more wonderful yet, the petrified bushes bear the most wonderful fruit, - diamonds, rubies, and emeralds as large as walnuts." "The story," says Dr. Hayden in one of his reports, "has a large basis of fact, absurd as it sounds. There are fields of sage, as well as bits of forest, which, lying in the immediate vicinity of springs, have been petrified while standing. The hot, silicious water is drawn up through the pores of the wood, and between the wood and the bark, by capillary attraction, and, depositing silica wherever it goes, transforms the tree or brush into rock." As for the fruit, it is borne on the outside and inside of the trunks of the trees, rather than on their branches. The trunks are converted into crystalline quartz,— amethystine or yellow,— and it is this which gives the "mountain man" his diamonds as large as walnuts. Some of the crystals on the trees near Excelsior were gorgeously colored, and for a moment we rather regretted not being able to take a few of them away with us.

It was a relief to reach the living forests again. The road led along the banks of Firehole River and made frequent crossings of the stream over rustic bridges. With few exceptions there was no suggestion of the near presence of geysers and boiling springs. Now and then a thin cloud of vapor could be seen far in the quiet seclusion of the forest; but as a rule there were only sylvan shades and the fast-running river, bright and clear as those among the mountains.

Gaining an elevated point of lookout, the scene changed again. Directly before us was spread the long, narrow valley, which is to-day the marvel of the world. The Upper Geyser Basin has no counterpart. Its spouting fountains, its colors, and its formations are all unequalled phenomena. Through nearly the centre of the valley speeds the winding river; and on its either bank are grouped the geysers,—some

with castle-like cones of chalky whiteness, others mere circular bowls in whose depths one may see the troubled waters preparing for their sudden leap high into mid-air. Within the place—which ever seems enchanted—you are encircled by wooded hills,—a dull-green background to the white cones and whiter water-spouts; and the ground, save for its scattered basins of blue and pink, gold and red, is like a chalk-bed,—soft to the touch and crumbling with chemical action.

Here, surely, is the Wonderland whose features the guide-books so minutely describe. The entire area of the basin is nearly four square miles. It is well timbered, and the soil where there are no spring deposits is a dark volcanic sand. Near the river the formation is calcareous, and rises above the level of the stream to a height of from ten to twenty feet. The first descriptions of the springs and geysers were given by members of the Washburne expedition; later information has been gained through the Government Geologists who visit the basin nearly every year. More than four hundred and fifty springs have already been named, and of these are many which are distinctly geysers. From the balcony of the hotel a score of them may be seen. Some send forth high spiral columns; others are mere fountains, rising and falling in obedience to the unseen forces. One famous geyser, Old Faithful, has an hourly



OLD FAITHFUL.

eruption. Its cream-white cone forms the apex of a low mound near the hotel, and from this, preceding every action, issue loud, hoarse groans and waves of heated air. Far down the chimney-like opening you can see the surging waters, now filling the gloomy depths, then disappearing, and finally bursting forth in a torrent and shooting skyward like a rocket. For five minutes the gorgeous spectacle lasts, and the slopes of the mound are overrun with steaming rivulets. Then the eruption ceases. With a few despairing efforts the waters return to their caverns, and the cone is only an empty shell, bluish-white within, and like a block of incrusted marble on the outside. The actual height which the waters attain is two hundred feet. The stream itself is six feet in diameter, and falls in a graceful arc that ends in a glittering shower. The eruptions occur at regular intervals of every fifty-seven minutes.

Among the largest and best-known geysers of the Upper Basin are the Bee Hive, with a cone of such shape as easily to suggest the name, and from which the fountain rises 200 feet; the Giant, — diameter 7 feet, height 140 feet, duration 3 hours; the Giantess, — diameter 18 feet, height of extreme jet 250 feet, duration 20 minutes; the Grand, — diameter 20 to 25 feet, height 250 feet, duration 20 minutes; the Grotto, — diameter 4 feet, height 60 feet, duration 30

minutes; the Castle, - diameter 5 feet, and height 50 feet; and the Fan, — 60 feet high, and duration from 10 to 30 minutes. cones of the Castle and Grotto are indescribably beautiful. They are of pearly whiteness, and are lined with mother-of-pearl tints that glow like masses of opal. The Giantess has no rim to its bowl, and when inactive the waters are out of sight. During its period of eruption, however, the bowl is filled to overflowing; and when the moment of greatest activity arrives the waters are hurled forth in a body, the major portion rising only a few feet and then falling back, but slender jets shoot far above the opening, and rise higher with every loud pulsation of the heavily breathing monster. Standing near this throbbing creature, then manifesting its enormous strength, we felt the earth tremble. the air was filled with groans, and the riverbanks were deluged with the steaming floods. For days the pool had shown signs of distress, the waters boiling and the steam rising in dense clouds. At times the agitation grew more pronounced; and visitors, leaving the other geysers, rushed to it, hoping that the time of the great eruption had arrived. At last, toward sundown,

the moment came. From its hot resting-place there arose a tremulous wall of water that grew in height before our very eyes. Like a windswept lake, shot into mid-air, it hung suspended above the pool. Then, thrusting forth its tall spires of minute particles, it fell to earth again and swelled the volume of the river.

One who has never seen them can form no conception of the cones from which the waters of the several geysers escape. In the distance they resemble white-walled castles; and a closer inspection reveals a multitude of brilliant colors. The walls vary in height from eight to eleven feet above the crest of the formation which they crown, and are composed of hardened creamwhite silica. The Castle Geyser cone stands on a mound forty feet higher than the river, and is the most picturesque feature of the Upper Basin. A thin column of steam continually escapes from the orifice of the cone, and at intervals small jets of water spurt high above the clear, white walls. Few are fortunate enough to see a complete eruption. The Earl of Dunraven was one of the favored, however, and in his description of the scene he says that the column reached an altitude of two hundred and fifty feet. Immense

quantities of hot water were ejected, and the descending spray ran in torrents down the geyser sides. The noise was like that heard on the sea cliffs, when the ocean is lashed by a storm, and the ground trembled from the shock. For twenty minutes the spectacle continued, and following the water came hissing steam, expelled in regular beats and making a continuous roar.

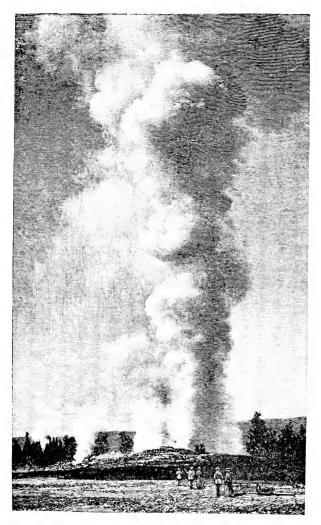
The walls of the Grotto are not so high as those of the Castle, but its crater is hollowed into fantastic arches beneath which are the rents through which the water and steam escape. During eruption the two main cones are deluged and nearly concealed by fine white spray, through which spurt small jets that shoot upward from twenty to forty feet. On the outside the walls are very white, but on the inside they are of light sea-green, reminding one of blocks of ice, - only they are hot to the touch and smell of sulphur. We did not see these two geysers at their best, we were told; but they seemed very beautiful, and the forests gave them a background that intensified all their colors. were less noisy than the others, less terrible, and less suggestive of a force that could, had it pleased, break away from all bounds and scatter

a broadcast desolation. The spray that now and again poured forth from the openings was as light and graceful as a veil, filled with colors where the sun's rays shone upon the quivering drops, and draping the geyser sides with shimmering sheets. A master hand has chiselled the walls of these cones. There are countless little towers and turrets and loopholes, from which escape tiny jets of steam; and at the Grotto you can step within the gloriously tinted caverns and imagine them rooms of an actual castle.

You cannot easily grasp the full significance of the Upper Basin for a day or two. In his enthusiasm one hastens from place to place, and loses not only time but the chance to study the features of each eruption. And by study alone can you comprehend the spectacle that the region affords. There are other geysers in the world, — in Iceland and in New Zealand, — and thermal springs without number. But some of the largest geysers are here in this little area of four square miles; and the phenomena presented by them have been investigated again and again. I confess that we grew tired of the boiling waters, so restless and hot, and that it

was sometimes pleasanter to sit on the hotel veranda and watch the cruptions from a distance. But none of us, I think, ever wearied of the gorgeous colorings of the region, or neglected to applaud a geyser in action. Whenever we looked down the valley we were sure to see one or more columns of water leaping skyward; and if there was not water there was steam, and that from a distance was quite as effective.

I have not by any means given an exhaustive list of the different springs and geysers, nor told where they may be found. Such information is afforded by the local guide-books, and every geyser is labelled with a sign. You can easily find them all. If the Giant happens to be in action, you will need no guide to it. The darkcolored crater is ten feet high, and the inside walls are vellow and are broken down on one side. When playing, a column of water is ejected that measures five feet in diameter, and attains an altitude of nearly two hundred feet. The eruption continues for hours, and is conceded to be one of the grandest spectacles in the basin. Its only equals in the world are the Giantess and the Great Gevser of Iceland, the latter being the largest in the world. More



THE GIANT GEYSER,



than seventy-five active geysers have already been found in the Park, and twenty-five of this number are in the Upper Basin.

Near the Castle geyser is one of the most beautifully colored pools in the Park. It is very deep, and the water is so clear that one can see far into its depths. The blueness is that of the sky intensified, and the rim of the pool is pink, shading to orange and cream-white. At certain angles the geyser cone near by is reflected on the calm surface, and the wide circular basin expands in one's imagination until it becomes a sea, and the cone a ship, becalmed upon it, but with all sail set. Other richly colored places were the quick-sloping banks of the river near the Giantess and Bee Hive geysers. The undercoloring was light-yellow, and overlying this were streamers of red, blue, and orange, with a bordering near the water of green grasses. The brilliancy of the hues was everywhere heightened by the overflow from the geysers, which ran down the bank toward the Firehole, and by the bright sunlight, that was of dazzling clearness.

It is said, although I cannot vouch for the truth of the assertion, that if you soap a geyser

it will immediately display its power. The military guardians stationed in the valley keep an open eye on sight-seers, and one is not anxious to try experiments. I noticed, however, that our taciturn driver exerted a peculiar influence upon such geysers as he chanced to visit. Almost immediately following his advent an eruption occurred. The Bee Hive, for instance, performed most bravely for our benefit, and so did others that had not been so accommodating for many days.

The soaping process is very simple. A small bar of soap dropped into a cone will so grease the wheels of the unseen force below as to cause almost instant action. The story is told of a Chinaman who came to the Park and pitched his tent over a tempting spring of boiling water. He had found, he thought, a natural wash-tub; but the soap with which he liberally lathered his week's washing had the effect of waking the slumbering force of the geyser. An eruption followed, and high into the air went tent and clothes, leaving the astonished Celestial a sadder and a wiser man.

On nearing the Upper Basin the Firehole River flows down a narrow, rock-bound cañon

that offers a delightful retreat after the glare of the valley has caused one's eyes to burn, and when the geysers have ceased to interest. Two miles above the hotel is a series of cascades, the water leaping from one mossy ledge to another, and then bounding forward down a half-mile of rapids. The forests are very dense on either side of the falls, and the air is deliciously free from the sulphur odors that, in time, are so apt to offend and distress. The cañon was our favorite retreat near the close of our busy day of sight-seeing, and the driver, when he first piloted us there, showed an agility which we did not believe he possessed.

In the morning of our last day at the geysers we were given a taste of winter. A cold rain of the night before had turned to snow a little before sunrise, and at breakfast the ground was covered and the trees were bending beneath their unwelcome covering. In the valley the cones were double their usual size, and the vapor was like a sea-fog, hiding all but the nearer objects as it rose from every crack and crevice of the earth and gaping safety-valve of the subterranean caverns. The drive back to Firehole was cold and cheerless, and made us realize, as

we might not otherwise have done, so warm and beautiful had been the days, that our summer was on the wane, and that winter was ready to descend upon the Park.

The Lower Geyser Basin, or Firehole, is less closely confined by the hills than is the case with its near companion, and cannot be seen to so good an advantage. Its area is nearly forty square miles, and there are six hundred and ninety-three boiling springs, exclusive of seventeen that are of sufficient importance to rank as geysers. One would possibly be more impressed than perhaps he will be at Firehole, were it not that geysers begin to grow tiresome after too intimate an acquaintance; and at the Upper Basin they are your constant companions. The local guide-books, however, are filled with enticing pictures of existing splendors; and one humbly visits whatever is set down as necessary to be seen. But I confess that all novelty had departed. I liked the general rather than the particular features, and a geyser, if not in eruption, was looked at askance.

The drives about Firehole were our greatest joy. To-day, on horseback, we followed narrow winding trails that led to secluded springs cold as ice, or burning-hot; and on the morrow drove across the meadows to a high table-land literally covered with formations, and thickly studded with boiling springs and wide, open pools that now and again were hurled bodily into the air. On the extreme top of this highland, nestled in a group of pines, are the Paint Pots. There are several of these caldrons of boiling mud in the Park, and to each is given this fanciful name. The largest is near the entrance to Gibbon Cañon, a few miles north of Firehole. The Lower Basin caldron covers an area nearly sixty feet long by forty wide, and is enclosed by a rim five feet high. It is filled with a fine silicious clay, in a state of constant agitation, and contains a group of smaller basins each about three feet wide, which are filled with a sputtering compound of many colors, - blue, pink, brown, and gray.

Near the Paint Pots is Fountain Geyser, a deep, blue pool that boils and steams and occasionally has an eruption which sends the main body of water upward to a height of ten feet, and small jets to an altitude of fifty. From its rim we could see far over the great crusted mound which the geyser and mud caldron oc-

cupy. The air was raw and cold, and the rain and snow of a few days before had turned the marshes into ponds. Down in the depths of the Fountain the rumblings were long and loud, and the water was churned into foam and ran in rivulets down the white sides of the hill. At last the action began in earnest, and for half an hour the geyser became indeed a fountain, the water leaping high above its basin and falling back, only to rise again and again until it fell exhausted. We left it with regret, for it was our last day in the basin and no more geysers were to be visited.

From the Lower Basin our route led eastward over the hills and through the forests to the Grand Cañon of the Yellowstone. The road was rough, but the views after entering Hayden Valley, where one first catches sight of the Yellowstone, more than counterbalanced all discomforts. Once out of the forests the prospect broadened, and we were face to face with the white-topped peaks that had been our distant landmarks for so many days. Far to the south rose the bold headlands of Yellowstone Lake; and in the north stood Mount Washburne, its feet hid by the pines. At the entrance to Hay-



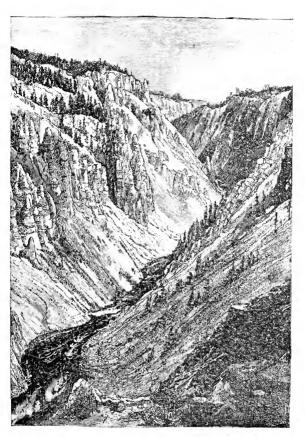
FOLLOWING THE YELLOWSTONE.



den Valley we swept around the edge of Sulphur Mountain, — a huge pile of pure sulphur, yellow-tinged and filling the air with odor, — and then passed out upon an open rolling plain with long stretches of brown grass and darkgreen pines that looked like massive armies. Later we reached the Yellowstone, and for hours drove along its tree-grown bank, catching bright glimpses of the placid waters flowing beneath the overhanging boughs.

As the day neared its end we descended from the river's bank into the Cañon, through which it now began to force its way, forded a branch of the stream, and were wrapped in the gloom of the narrow defile that the Yellowstone has worn. Above the sighing of the pines could be heard the roar of the Falls, and at our side the river ran headlong toward the fearful precipice over which it takes its fearless leap. Every moment now the cliffs that hemmed us in rose higher and higher. Hardy trees grew from the crevices of the dark-stained rocks, and the river was lashed into foam by half-submerged ledges lifting their wet heads above the seething tide. We were still in Wonderland; but instead of weirdness there was beauty, and the air was fragrant as in our New England woods. Chattering squirrels sat on the pine boughs and mocked us, and there were mossy banks and thick layers of pine-needles. No need to tell us that we had now reached what is indisputably the most satisfying corner of the Park. We realized the fact, even in the gathering darkness.

The hotel at the Grand Cañon stands within a few feet of the Upper Fall, and is surrounded by a heavy growth of pines. To the right runs the river, and at the left of the house begins a narrow path that follows along the edge of the stream, but high above it, to the various points of observation from which one looks into the Cañon and upon the two grand cataracts. the evening of our arrival we sat around the office stove, listening to the praises of the place. In the morning we walked down stream to see for ourselves what it was like, and if it had been too much glorified. One look, and we were satisfied. I had imagined that the West had nothing new to offer; had thought I knew its features thoroughly, and that I could not be surprised into fresh enthusiasm. But when I stood upon an overhanging ledge and saw at



GRAND CAÑON OF THE YELLOWSTONE.



my feet a narrow canon nearly two thousand feet deep, its rough-hewn walls of countless colors, I knew that here was something such as I had never seen before.

Imagine the prospect. Below you a narrow gorge, cut through the very centre of high, wooded hills; in the bottom of this a river rapidly flowing, — a mere ribbon of light green or blue that makes no sound, yet actually seems to quiver as it runs, and which flaunts its colors like a streamer straightened by the wind. All this directly beneath the rock on which you stand.

Now look to your right. Between two huge shoulders of rock is a great white wall as light, and seemingly as soft, as feathers. At its crest is a strip of deep sea-green; below, pure white, and far down in the depths of the cañon, a rising cloud of mist that is met by the wind and blown from rock to rock, or, touched by the sunlight, becomes an arch of rainbow hues. It is the Great Fall of the Yellowstone, — higher than Niagara, higher than Shoshone, higher than any fall of equal volume of water that you have ever seen. From the top line of green to the base of that ever-moving cloud of spray, the distance is

three hundred and ninety-seven feet, while the width of the great white sheet is less than one hundred.

But still you have not seen all. For higher up the river there are white-capped rapids. making wild leaps against the walls that shut them in on either side; and beyond them is the Upper Fall, not so high as the one below, but just as white, and having the same airy gracefulness and its veil of mist. Recalling the Cañon of the Yellowstone, I am still inclined to think it an enchanted place; for now, as then, I feel its spell, and am at a loss for words to picture it. Artists every year belie its glories, and only one has ever caught the spirit of the scene and carried away the true colorings of cliffs and water and trees. Every isolated column of rock in the Cañon has its peculiar hue, - its yellow or red, its slaty-blue or rich dark-brown; and as you look up or down the gorge it is all aflame, and the colorings change with every hour of the day. It is a masterpiece of Nature, — a creation which the more you study, the more you will appreciate and enjoy. We fairly revelled in its beauty, testing every point of view, climbing the rocks above the Falls, and working our way to the level of the river itself. At noonday, when the reds and yellows lost their softness in the glaring light, we sought the shadow of the pines, and from there watched the river take its fearless plunge. But earlier and later we lingered at the very edge of the Cañon, looking down upon the nests of the eagles built upon many of the more isolated spires, and studying the brilliant, changing lights and the rich, warm shadows. We forgot the dimensions, so conscientiously recorded in our guide-books; forgot all comparisons. It was enough to feel that what we saw was more beautiful than we had ever dreamed.

CHAPTER X.

HOMEWARD BOUND.

THE Yellowstone River is the largest and most important branch of the Missouri. It issues from Yellowstone Lake, and has a drainage area in the Park of nineteen hundred square miles. From its source to the Upper Falls the river is wide and sluggish. From its east banks rise the mountains of the Yellowstone Range, and on the west are the high plateaux, known as Elephant's Back, and the Washburne Range. About a mile above the Upper Fall begins a series of rapids and cascades, and at the fall the river contracts to a width of less than eighty feet. The Lower Fall is half a mile below the Upper. The Grand Canon begins at the Lower Fall, and is twenty-four miles long. "Indeed," says Mr. Gannett, in his contribution to Dr. Hayden's report, "the Yellowstone is in a continuous cañon from the Upper Falls to the

mouth of Gardiner's River, but the partial break at the mouth of the East Fork separates it into two parts, known as the Grand and Third Cañons. The former occupies the line of greatest depression in a volcanic plateau, which slopes to the northward and southward from the Washburne Mountains, and to the westward from the Amethyst Ridge of the Yellowstone Range. Its course is northeast as far as the Washburne group, and then is slightly westward. height of the plateau at the falls is about 7,800 feet. At the head of the Upper Fall the river level is but a few feet below the top of the plateau. This fall adds 112, and the Lower Fall 300 feet to the depth of the chasm. From the foot of this fall to the mouth of the East Fork of the Yellowstone, the total fall is 1,304 feet in twenty-four miles, an average of 54.3 feet per mile. As far as the extremity of the Washburne Mountains, a distance of twelve miles, the cañon increases its depth to 1,200 feet. The width of the cañon near the falls is from one fourth of a mile to a mile, and the angle of slope of the walls from the top to the water's edge ranges from 45° to 75°, with a horizontal line."

Mr. W. H. Holmes, discussing the geology of

the Park in Dr. Hayden's report, concludes that the cañon is one of erosion and has been cut by the waters of the Yellowstone since the flow of rhyolites, and probably very greatly since the conglomerate-forming era. The lithologic character of the walls is most interesting and extraordinary. The formations consist of igneous rocks, and include a great variety of rhyolites and pitchstones. "A feature of the walls below the falls," says Mr. Holmes, "is the occurrence of fragments of horizontal strata which have been built into irregular recesses, and are thus shielded from erosion. They are generally coarse-grained sandstones or conglomerates, and resemble the lake beds found on the upper surface of the plateau." At the falls one is within the borders of the ancient Vellowstone Lake. The walls of the canon between the two cataracts are capped with about twenty feet of horizontally bedded sandstones, under which are thirty feet of sandy clays. Similar outcroppings are also found above the falls and in Hayden Valley. The cañon walls below the Lower Fall, at Promontory Point, are all white or gray rhyolites stained by the oxidization of minerals. Below the Point the walls are of brown or gray rhyolites, which weather very dark. Here occurs the most remarkable instance of the columnar structure, which is so noticeable a feature of the Cañon. "The joints have the greatest diversity of directions, extending in great sweeping curves across the wall, reaching from base to summit in almost straight lines or arranged in groups set at all angles with each other." Minerals and hot springs have given a great variety of colors to the rain-sculptured face of the cliffs, and every hue is intensified by the dark-green forests that cover the plateau to the very edge of the awful chasm.

There is probably no more interesting district in the world than that of the Grand Cañon. You cannot exhaust it in years. Every foot of the gorge has its geologic history plainly written on the cliffs, and the mountains and minor cañons are open books of information. One of the most curious of the many phenomena is found on the steep slopes of Amethyst Mountain, a high ridge on the East Fork of the Yellowstone. The exposed strata there is filled with the petrified remains of ancient forests. At a height of five hundred feet above the level of the river, and embedded in various strata, are

prostrate trunks forty and fifty feet long, and five or six feet in diameter. In the middle portion of the mountain face "rows of upright trunks stand out on the ledges like the columns of a ruined temple." In many cases the roots are exposed, and may be seen penetrating the now solid rocks. The wood is often perfectly preserved. One tree particularly noted by Mr. Holmes was covered with bark four inches thick. and retaining its original deeply lined outer surface. The strata inclosing this trunk contained many vegetable remains, — branches, rootlets, and fruits; and one stratum of sandstone was filled "with a great variety of the most perfectly preserved leaves." In many instances the petrified wood is completely opalized or agatized, and its cavities are filled with beautiful crystals of quartz and calcite. "The silicifying agents have been so active in these strata," writes Mr. Holmes, "that not only are all organic remains thoroughly silicified, but all cavities in the loosely bedded rocks and all fracture-lines in the strata are filled with chalcedony or other forms of quartz." Fossil trees are found at a height of three thousand feet above the level of the river, and are supposed by Mr. Holmes to



CLIMBING THE TERRACES.



exist in the conglomerates that reach and form the loftiest summits of the range.

Slightly to the northeast of the Grand Canon is the Washburne Range, containing twenty-five different summits ranging in height from 9,000 to 10,000 feet. The two highest peaks are Mount Washburne, 10.346 feet above sea-level, and Dunraven's Peak, 0.088 feet high. The former is quite easy of access from the falls. The trail extends along the edge of the Cañon, and crossing the mountains continues to the Hot Springs of Gardiner's River. Before the completion of the Government road the Mount Washburne route was the only one by which the Grand Cañon could be reached, and is still used by those making the tour of the Park on horseback. The view from the peak is unequalled for extent and variety. The broad expanse of the great central plateau, with its forests, lakes, and deep winding canon; the distant summits of the mountains beyond Yellowstone Lake, and of those surrounding the Park; and the depressions containing the numerous hot springs and rivers are all within the range of one's vision. One cannot begin to imagine the grandeur of the scene, and from no other point can so good

an idea of the peculiar topography of Wonderland be obtained.

Coming down the trail up which we were slowly making our way was a party of sightseers who had come from across the Atlantic to visit our National Park. All that great wealth could buy was at their command. They had ridden for many miles, and visited every prominent section of the region, making camp wherever night overtook them, and seeing the country in a manner that few Americans ever take the trouble to imitate. But the leader of the party — he who planned the journey and was now the most enthusiastic - was blind. Rich, and a noble of England, he could see nothing of the beauty around him, and could scarcely distinguish day from night. Yet here he was describing the view from Mount Washburne and asking countless questions about the Cañon. No one would have imagined his infirmity. His wide-open eyes, his animated manner, his evident enjoyment of the places to which he was led, stamped him as an enthusiast. When we were told that he was blind, the pity of it made our hearts grow sick. Ever afterward, I am sure, one of us at least took more careful note of

the objects around him, and ceased complaining at trifles.

The one other attractive feature of the Park in the immediate vicinity of the Grand Canon is the Yellowstone Lake, famous for the beauty of its shores and as being the largest body of water, of equal elevation, in North America. Its level is 7,738 feet above the sea, and in shape it resembles a huge hand, with fingers and thumb outstretched. Numerous islands are grouped upon its placid, deep-blue surface, and the shores are heavily fringed with dense forests, from out of which at certain points huge shoulders of detached mountain ranges extend to the water's edge and end in high, abruptly rising cliffs with serrated summits. The lake has an area of one hundred and fifty square miles, and is twenty miles long by fifteen wide. The waters are shallow, and their intense color greatly enhances the general beauty of the shores and brilliant reds of the rocky promontories. Shorelines are indistinctly marked on the face of the cliffs, and the surrounding topography is such that if the water rose but two hundred feet the lake would again fill its ancient bed and cover the levels now so dry and brown.

But the days were now so short, and the evenings so cool, that we needed no suggestions from the hotel-keeper to realize that, like poor Jo, we must be "moving on." October was near at hand. Before us were still many miles of travel, and there was much of interest to see.

So, after a last visit to the Cañon, and a parting look at its beautiful walls flushed by the early light, we drove over the hills and through long stretches of forest to Norris Basin and from there to the Mammoth Hot Springs. At the latter place were to be made our adieus to the Park, and the drive was our last with that knight of the front seat who had guided us ever since beginning our journey at Beaver Cañon. There was little of interest on the road to the Norris Basin. For a moment a glimpse was had of the Yellowstone River, winding through Havden Valley and then losing itself in the depths of its Canon; and later we passed a series of cascades, the water falling over sloping ledges and looking very white and beautiful against the background of green pines and dark rocks. At Norris there were more geysers and hot springs and pink-rimmed pools. We visited them all, as in duty bound, but were

glad to leave their noisy spouting for the freshness of the valley that leads northward to the Gardiner River district and its famous Hot Springs. At times we were tempted to forget the lateness of the season and linger in the region that, even to our satiated eyes, was not without its interest. But the driver, at last, lost all patience and urged us on. Behind us, he said, was all that he cared anything about, and all, he guessed, that we would enjoy seeing.

The Norris Geyser Basin has an area of about six square miles, and an elevation of 7,257 feet above sea-level. It lies in a depression of the plateau uplands, and is near the head-waters of Gibbon River, a tributary of the Madison named by Dr. Hayden in 1872 in honor of General John Gibbon, who first explored its narrow valley. The several springs and geysers were discovered by Mr. P. W. Norris, then the Government Director of the Park, who built a wagon road to them from the Hot Springs. The Basin contains no extensive deposits, and its phenomena are all of recent origin, — a fact which renders the little valley particularly interesting to geologists studying the history of the thermal springs in the Park. The Norris Mud Springs

cover large areas, and are remarkable for the variety and brilliancy of their coloring.

I think one can gain no better idea of the strange configuration of the Yellowstone Park than from the low water-shed which stretches across the valley a little north of the Norris Basin. For there, on the one side, the waters flow south to the Madison, and on the other north to the Yellowstone. Apparently they are lost to each other forever, and yet, eventually, both join the Missouri, the one taking a straight course to that great river, the other making a long detour and flowing many miles. On leaving the Basin we crossed the divide, and drove nearly due north through a wooded valley enclosed by low ranges and containing a profusion of long shallow lakes and steaming hot springs. The waters are strongly impregnated with lime and sulphur, but occasionally there are springs of delicious freshness. The territory surrounding the latter is favorite camping ground, and is rarely without its visitors.

Just before leaving the narrower part of the valley the road closely follows Obsidian Creek, a branch of the Gardiner, and passes the base of the Obsidian Cliffs, nearly two hundred feet

high, and composed of black obsidian rock arranged in pentagonal columns that are perfectly cut and glisten in the sunlight. The road-bed is made of the glass-like compound, and the towering promontory is followed for half a mile. In examining the cliffs Mr. Holmes found a narrow trail that passed along the brink of the ledge, and descended the broken cliffs to the valley above and below. In its near vicinity were innumerable Indian implements, showing that at some time in the far-away past the cliffs were the source of extensive supplies of whatever is fashioned from the hard, keen-edged material. Piles of arrow-heads and curious utensils still exist, and the ground is covered with the flint-like bits which have been chipped from the hard black walls.

From the region of lakes and forests we passed into a broader portion of the valley, keeping within sight of winding streams and having an extended view of the mountains, that now appeared impenetrable barriers to our further progress northward. The range they form was, in fact, a stern old landmark at one time, and for years held in seclusion the country of which it is the northern wall. At present, how-

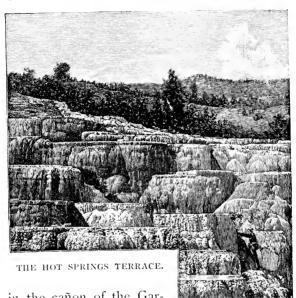
ever, Government has built a well-graded road through one of the natural cañons called Kingman's Pass, and the ancient breastwork is scaled with greatest ease. The scenery of the Pass is often grand, and its walls rise high above the road. The hills through which it cuts its way are brown and treeless, and at their base flows one of the forks of the Gardiner.

Beyond the Golden Gate, as the narrow passage leading to the Pass is called, is an area of dead forests. Coming upon the dead and fireblackened trees, we were quite willing to believe that the driver had told the truth when he said that we had seen the best of the Vellowstone There was a startling contrast between the general drvness of the basin we had now entered and the green freshness of those farther south, and even the warm coloring of the mountains that form the Gateway failed to awaken the interest that had been so satisfied by the Grand Cañon. One cannot help having the keenest enjoyment when making the grand tour of the far West; but there are times, I must confess. when a mountain, be it ever so beautiful, fails to awaken one's enthusiasm. But I have seen the time when a cathedral was just as tiresome,

and I know very well that there were days when the Louvre or the Pitti Palace failed to interest me.

The Mammoth Hot Springs are a famous feature of the National Park. Many are so satisfied with their novel formation that they crave nothing stranger. Only in Asia Minor is their equal to be found. They cover an area of nearly three square miles, and extend back from the Gardiner River over two miles. In the mysterious past the valley which they occupy did not exist. The country was a vast level of rhyolites, through which in time the river wore its way, the springs sinking with it until now they issue from the hillside a thousand feet below their former level. From the top of the great white terrace which the waters have formed, and the basins of which it still fills and overflows, one can see the crest of the old rhyolite plateau; and on the sides of Mount Evarts, the highest elevation near the river, the geologists trace the successive strata by which the story of the great erosion is told.

The immediate surroundings of the Hot Springs formations are limited by hills mostly brown and bare. Here and there are patches of forest, enclosing the crumbling terraces of springs that have long since ceased to flow; and



in the cañon of the Gardiner are areas of greensward kept moist by the spray that falls upon them from the foaming cataracts of the river. As a rule

the valley or basin is void of beauty; but when one looks upon the high white mound, with its natural stairway of delicately formed basins of many colors, he forgets the general dreariness of the region and finds a fascinating interest in the great terrace which has been slowly gaining in dimensions these many thousands of years. All other formations sink into insignificance when compared with the Hot Springs Terrace. Its great height and extent, the beautiful and varied color of the water filling the basins, the illustration it affords of the action of thermal springs, the variety and form of the calcareous deposit, - cause one to forget the glare of the sunlight and the heat of the day. Standing on the top of the mound, white as snow, you are surrounded by rising clouds of steam, and your feet grow hot from the great heat beneath. Springs are everywhere, some boiling fast and others slowly, and winding streams of water course through narrow channels and fall like a veil over the sculptured fronts of the basins. Wherever the springs have ceased to flow the deposit is dry and crumbling. But the walls of the basins, still full to overflowing, have edges colored with the hues of the rainbow. There are the palest pinks and blues, the deepest reds, browns, and yellows. "One can look down

into the clear depths," says Dr. Hayden, "and see with perfect distinctness the minutest ornament on the inner sides of the basins; and the exquisite beauty of the coloring and the variety of forms baffle any attempt to portray them, either with pen or pencil."

Thermal springs, as those are called whose mean annual temperature exceeds that of the locality in which they are found, are distributed at random over the entire world. In New Zealand and Mexico, in South America and Europe, in Asia, Africa, and America, they find their way to the earth's surface no matter how high or how low the elevation. In India thermal springs exist at an altitude of sixteen thousand feet; in France and Germany they are less than a thousand feet above the ocean level. Latitude does not affect them. Their temperature is as great in the Arctic circles as under the equator. The reputation of their waters for medicinal and bathing purposes was known to the ancients as well as to ourselves. Pliny discusses and the Romans erected temples over them. The baths of Diocletian were famous for the statuary with which they were adorned; and Italy to-day shows many a ruin of the gorgeously decorated buildings where the rich and the poor used to gather to bathe in the healing waters. In the Vellowstone Park more than three thousand of these springs — whose temperature must exceed that of 75° F. — have been named; and I know of no more interesting reading than that found in the report of the Government Geologists, who have visited and studied them. I have but slightly mentioned their more apparent characteristics. To do more would have required volumes. But he who would enjoy to the utmost the spectacle presented by the Mammoth Hot Springs, which are strictly thermal and whose deposits are calcareous rather than silicious. should not only read the exhaustive reports of Dr. Peale, but should visit the geysers and boiling pools and notice the nature of their deposits. Only by so doing can the peculiar formations of the Mammoth Springs be understood. They are peculiar to themselves, with only one counterpart, and that a small one in the Park, and with but few equals in the world. Countless ages have passed since the waters first began their laborious, patient work of building terrace upon terrace of white-walled basins. Inch by inch, less than one sixtieth of an inch a day,

the present terrace has been formed; and now the main deposit is more than two hundred feet high and three hundred yards wide. To find another so large a sedimentary deposit one must visit Italy or Algiers, Peru, India, or Hungary. The deposits at the baths of San Vignone, Italy, have a thickness of 250 feet, and at San Fillipo, near Rome, strata of 328 feet thickness are found. "In 1604," says Dr. Peale, "Father Joseph de Acosta describes the springs of Huanvelica, Peru, as depositing stones of which houses are built. St. Peter's and all the principal buildings of Rome are constructed of travertine (or calcareous tufa); and at Hierapolis the deposit rises one hundred feet above the plain and has a width of six hundred feet, and upon this the city stands."

The main cause of the formations, both silicious and calcareous, is the evaporation of water containing carbonates and silica. Calcareous waters also deposit by simply cooling or losing carbonic acid upon coming to the surface. Silicious formations are found at all geysers and boiling springs. The deposit grows slowly and has an infinite variety of forms. It is often transparent, and may be seen in many places

covering the autographs of the early visitors to the Park, who delighted to write their names on the rims of the springs. Inscriptions in pencil soon become indelible, but are perfectly legible beneath the varnish-like coating of silica. Wherever calcareous springs are seen, the deposits assume certain forms, one of the most constant being that of the bath-like basins arranged in terraces so characteristic of the Mammoth Springs. These same forms are seen at Hierapolis, in Asia Minor, and in fact wherever springs exist that contain a large percentage of calcium carbonate. Dr. Peale says it is not necessary that the water should be hot, and instances the cavern of Luray in West Virginia. The recent deposits and those on which the active springs are found at the Mammoth Springs, occupy about one hundred and seventy acres. There are fifty-two different springs described by Dr. Peale, which vary in temperature from 63° to 165° F. Each has its peculiarly sculptured basin and color, and to mention the characteristics of each would require many more pages than are at my disposal. Spring numbered 17 by Dr. Peale has a beautiful marblelike basin filled with light-blue waters, on which float masses of red-tinged lime carbonates; another has a reddish rim to its basin and contains long, silky filaments of light yellow. The basin of the Cleopatra Spring is forty feet high, and covers an area of three fourths of an acre. The inner walls are of pearly whiteness with reddish edges, and the waters are blue. Some of the channels through which the overflow passes are bright green or crimson. The hues are bewildering at times, and are always intensified by the general whiteness of the high, broken mound. The older deposits, now dry and crumbling, are not far from the main terrace. Their walls are grayish white, and one of the formations is overgrown with forests. The highest living spring is one thousand feet above the level of the Gardiner.

Here and there, scattered over the main terrace, are curiously fashioned caves with narrow entrances guarded by dripping waters. Within these shaded recesses the walls are like the inside of the sea-shells. You can hear the loud murmuring of hidden springs, and around you are quaintly carved stalactites and stalagmites. To the right of Cupid's Cave, as one of these grottos is named, is a walk that extends from

the terraces to Orange Geyser. The path leads through a grove of pines, among which are seen the pure white walls of the old deposits. The shade is most welcome after the trying glare of the place you have left, and the gevser, sputtering itself hoarse, is an odd little creation which we never tired visiting. Its cone is a low, round hill, as yellow as an orange, and not more than ten feet high. On its top is the geyser, — a tiny, spouting fountain that gurgles and splashes all day long. Its little basin was filled to overflowing, but the activity of the diminutive geyser never ceased, and the cone was dripping wet with its waters. I doubt if we ever enjoyed a geyser so thoroughly as we did this one. The coloring of its cone was very rich and mellow, and made all the more pronounced by the surrounding green of the forests. The place, too, was delightfully fresh and cool and quiet, and the noise that the baby fountain made filled the air with a delicious murmur, such as one hears when the waves are softly rolling in upon the sea-sands.

Just to the left of the main terrace is a rounded knoll, thickly overgrown with trees long ago killed by the white walls that sur-

round them From here was had our best view of the Gardiner River basin. Below us stood the weather-beaten buildings that serve as headquarters for the military forces in the Park, and into the distance stretched the valley, dotted here and there with little columns of vapor that marked the spot of a hot spring. Looking far away to the great outer walls of mountains, we were lost, for a moment, to present surroundings, and again were driving along the by-ways of the silent hills. Then, suddenly realizing the duties of the hour, we turned away and once more gave attention to the steaming basins and the ever-flowing waters. The day was our last in the Park. On the morrow we should say farewell to its many wonders, and be speeding eastward to the civilization from which we had so long been absent.

Much had been learned during our wandering pilgrimage; and much, no doubt, would be forgotten. But I am sure now, as I was then, that among the unforgotten will be the idle days when we drove through fields both new and strange and beautiful. They will be remembered forever, comforting and amusing when, for the time, we throw off the cares of a busy

life and look backward to the fading past. The trials we encountered and the annoyances we had to undergo will not seem so great in after years as they did at the time. We shall smile at them, I fancy, and wonder how they ever troubled us. Days with Nature are redletter days, if we but knew it. For none can paint and plan and fashion so well as she; and none, I think, can amuse us half so cleverly.

From the Hot Springs to Cinnabar, a town on the outskirts of the Park, and at which one again meets a railroad, the route is down the Valley of the Gardiner as far as the point at which that river joins the Yellowstone. Thence the west bank of the larger stream is followed to the village, where farewells to Wonderland are said.

From here the valley turns due north, and down its centre flows the Yellowstone. On each side are high ranges whose abruptly rising fronts and tops are crowned with forests. At the base of the west range extends a branch of the Northern Pacific Railroad, which connects Cinnabar with the main line at Livingston. It was built for the accommodation of visitors to the Park, and has a most picturesque entrance to the very borders of Wonderland. The valley

continually narrows and contracts. Here the cliffs leave scarcely room for the road to find a foothold, and again recede from the river and leave open fields covered with grasses and dotted with cattle and small farms. From Livingston the view southward toward the great Gallatin and Yellowstone Ranges is one of the most beautiful in the West. The way seems choked with mountains, and the tall white peaks give the higher levels the appearance of belonging to the Arctic Circle.

It is a most interesting ride from Livingston to St. Paul, and were one to go westward a few miles from the little town that stands at the gateway to the Park, he would find the three rivers which form the Missouri. The railroad crosses their meeting-point, and the place is made memorable by the exploits of Lewis and Clarke. Our old friend the Madison ends its journey there, and you can see it winding down the valley and boisterously joining its companions. Had it not been for the lateness of the season we would have gone still farther westward to Helena; for having had a taste of the Rockies we were disinclined to leave them, and Helena, we knew, rested in their very lap.

There is much historical interest connected with the country tributary to the Northern Pacific. The road follows the general course of at least three famous explorers, and in the valley of the Vellowstone, which it traverses for nearly three hundred miles, were fought some of the fiercest Indian battles that were ever waged in the West. The earliest explorer to seek the head-waters of the Missouri was the Chevalier de la Vérendrye, who in 1743 followed the Missouri to within sight of the Rocky Mountains, and there buried a plate of lead graven with the royal arms of France. In a lately published paper regarding this early pathfinder Francis Parkman gives a most interesting account of his journey and life "Sixty-two years later," among the Indians. writes Mr. Parkman, "when the vast western regions then called Louisiana had just been ceded to the United States, Captains Lewis and Clarke traced the Missouri to the mountains. penetrated the wastes beyond, and made their way to the Pacific. The first stages of that remarkable exploration were anticipated by the brothers La Vérendrye. They did not find the Pacific, but they discovered the Rocky Mountains, or at least that part of them to which the

name properly belongs." On a tall pillar of stone standing near the road east of Livingston Lewis and Clarke engraved their names in 1806. The letters still remain, and seeing them one recalls the great journey of the two men, and is filled with admiration at their bravery in going forth into the then unknown world.

Of those who have but lately given the Northwest its history are the officers and men who camped along the valley of the Yellowstone, and made safe the way of the settlers who are now rapidly crowding into the country and transforming its wastes into regions of great productiveness. Not far away from the line of the road the genial, brave-hearted Custer lost his life, valiantly fighting against overwhelming odds; and in dozens of localities you will have pointed out the scene of some famous battle with the Indians, who once fiercely disputed the advancement of civilization. Peace reigns today; but to gain this happy condition of affairs many lives were sacrificed.

Thus, through scenes of historic interest, and having, too, their natural beauties of plain and mountain, of river and strange formations, we journeyed toward St. Paul. The summer of idle outing, of novel experiences, had passed. Every day brought us nearer the completion of our great circle of travel. From the Missouri we had reached and crossed the Rockies; now we had crossed them once again, and again at the side of the Missouri, grown deep and muddy and far less beautiful than when we had seen it at its source, we ended our holiday.

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